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SPIRITUAL PHILOSOPHY:

FOUNDED ON

THE TEACHING OF THE LATE

SAMUEL TAYLOR COLERIDGE:

BY THE LATE

JOSEPH HENRY GREEN, F.R.S. D.C.L.

EDITED,

WITH A MEMOIR OF THE AUTHOR'S LIFE,

BY

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MEMOIR OF THE AUTHOR.

MEMOIR OF THE AUTHOR'S LIFE.

MRS. GREEN has done me the honour of desiring me to see through the press the following posthumous work of my very dear friend and master, her late husband. And it is part of her wish that, in introduction to the work, and in explanation of the circumstances under which it was written, I should briefly tell the story of the Author's life, and describe, so far as I can, what influence he aimed at exerting in his generation, and what manner of man he seemed to those who had the happiness of being nearest to him.

JOSEPH HENRY GREEN was born in London on the 1st of November, 1791 ; and after seventy-two years of life, during which his powers and virtues won for him the highest honours possible to his particular career, he died at Hadley, Middlesex, leaving no issue, on the 13th of December, 1863.

Birth and
Death.

He was the only son of his parents. The father, Joseph, was a merchant of high standing in the city of London.* The mother, Frances, was sister of

Parentage.

* Eventually he was known as the head of the firm of Green and Ross, of Martin's Lane, Cannon Street ; but in 1791 he was carrying on his business without a partner at No. 11, London Wall, where also he then had his residence, and where the subject of this memoir was born.

Mr. Cline ; who, at the end of the last century, had already attained the place, which he long afterwards held, in the very foremost rank of English surgeons.*

From at least one side of this parentage, Mr. Green may well have inherited more than common qualities of mind. His father, indeed, though said to have been ardent and vigorous in what he had to do, is more emphatically described to me as having been one of the kindest of men, and quite child-like in the simplicity and unworldliness of his nature. But the mother's character was certainly of exceptional strength. Even to the end of her very long life, her conversation and aspect (the latter strikingly like her son's) conveyed the impression, not only of intelligence and education, but of a naturally firm, self-possessed, reflective, tranquil mind. And in her brother, Mr. Cline, there were marked qualities of the same class ; not only the intellectual gifts which sufficed for his professional success ; but a certain grand composure and elevation of character, which filled his friends and pupils with an almost religious faith in him, and which, when all who remember him have passed away, will still be on record in one of Chantrey's favourite works—that admirable bust, which Coleridge, when he was talking of the origin of mankind, was often glad to apostrophise† as in itself a sufficient refutation of Lord Monboddo.

* Mr. Joseph Green died in 1834, at the age of sixty-nine ; but his widow lived to complete ninety years of age, and died only ten years before her son. Mr. Cline by his own marriage, as well as by his sister's, was closely connected with the Green family, having married a half-sister of Mr. Joseph Green.

† “ And did *that* man's ancestor dwell in trees — ? ” &c.

From birth onward, the boy had all the educational and other advantages which ample wealth can command. Both because he was his parents' sole child, and also because he was born of exceedingly delicate constitution, his young life was the object of supreme care. But the vigilance of his parents was as great for his moral and intellectual, as for his bodily, well-being; and doubtless in the former respects they found that nature had given them a very apt soil for cultivation. For health-reasons he was sent to Ramsgate to get his first years of schooling. Afterwards he was for some years at the Reverend Dr. Attwood's, at Hammersmith,—a school which in those days was held in very high repute. And then, at the age of fifteen, he went for further education to Germany, where he studied in various places (chiefly in Hanover) for about three years. In illustration of the care which his parents had for him, it may be noted that during these three years his mother also resided in Germany, joined only at intervals by her husband; and that, according to her son's educational movements, she changed her residence from place to place, so as always to reside in the town where he was lodging with his teacher. Concerning the details of his primary education I know nothing; but I know that the result was to make him at an early age remarkable for his information and accomplishments, and to give him those habits of methodical industry and deliberate reflection and conscientiousness which marked him till the end of his career.

Early
educa-
tion.

Towards the close of 1809, returning to England, he was apprenticed at the Royal College of Surgeons to his uncle, Mr. Cline. Mr. Cline was Surgeon to St. Thomas's Hospital.

Medical
education
and its
circum-
stances.

And so the apprentice began his medical studies at that hospital, of which afterwards he was himself to become the honored head and ornament. Better security could not have been found for his future professional eminence, than that he should thus begin technical work with the advantage of a first-rate preliminary education, and follow it under the judicious and vigilant guidance of one who was himself a great master.*

Mr. Cline knew enough of the freemasonry of fellow-studentship to be anxious that his nephew's first acquaintances at St. Thomas's should be of the right sort. And the first thing which he did for him, in taking him to the hospital, was to introduce him to an elder student, a "dresser" of his own, of whom he had a high opinion, which the young man's after-career well justified. The fellow-student to whom the beginner was thus particularly introduced, and with whom he soon formed the closest of friendships, was William Hammond, son of a surgeon of the same name then in large practice at Southgate and Whetstone. And the friendship was an eventful one to the subject of the present memoir; for, through it, Mr. Green became intimate in the family-circle of his friend, and there had the good fortune of learning to know, in his friend's sister, the lady who afterwards became his wife.

Marriage.

There had been till about this time a rule at the College of Surgeons that no apprentice of the College might marry. But in 1813 the rule was opportunely repealed. And on the 25th of May of this year, Mr. Green (whose term of

* In 1812 Mr. Cline resigned his surgeons'hip at St. Thomas's, and was succeeded by his son, Mr. Henry Cline, who from that time, so far as the hospital was concerned, undertook the direction of his father's apprentices.

apprenticeship was as yet little more than half out) was married to Miss Anne Eliza Hammond. From this event he dated the more than fifty years of perfect domestic happiness and serenity which best favoured the peculiar tenor of his life. From it he also gained what to him (an only son) was the very great incidental advantage of alliance with a large and most estimable family; with the members of which many of his happiest hours of relaxation were henceforth to be passed; and among whom and whose descendents, he, till the end of his life, was entirely loved and trusted and revered.

For more than two years after his marriage, Mr. Green, still a student and dresser at the hospital, lived at his father's business-house, No. 6, Martin's Lane. But on the 1st of December, 1815, he obtained the diploma of the College of Surgeons, and now began the practice of his profession in Lincoln's-Inn Fields,—where (first at No. 22, and afterwards at No. 46) he lived for the next twenty years of his life.

Early professional life.

In 1816 he obtained his first official connexion with the school of St. Thomas's Hospital, by being appointed to the junior and unpaid post of Demonstrator of Anatomy. Tenure of that nominally small office involved, fifty years ago, far more than it now involves. Mr. Green, besides giving his own anatomical demonstrations, had often, in the absence of his seniors, to deliver part of the systematic course of lectures on Anatomy and Surgery. And moreover—as the Hospital had not then any regularly-appointed Assistant-Surgeon, he was often called upon to represent in the wards or operating theatre some one of the surgeons who was absent.

Course of
philosophy
at Berlin.

In the summer of 1817, there was an episode in his life which, in connexion with the present publication, deserves particular notice. Then, namely, he made an excursion to Berlin, for the purpose of having from Professor Solger a private course of reading in philosophy.* And through one of the circumstances of that excursion I am enabled to give a picture of him as he appeared at that period of his life to one who was well qualified to judge him. Ludwig Tieck, then in his forty-fifth year, and having in German literature an influence which was only second to Goethe's, had been paying a visit to London; and the circumstances of Mr. Green's expedition to Berlin are told in a letter which Tieck wrote to Solger on the subject, and which happens to be in print among Solger's literary remains.† “My chief
“object in writing to you now (Paris, July 26) is a matter
“about which I would have written from London, but
“that the end of my stay there was spent in the utmost
“confusion, and without a minute's leisure or quiet. My
“point is this. I made acquaintance in London with a
“young man of the name of Green, who sought me out,
“and at once fastened on me with a fine kind of faith. He
“is full of a noble eagerness for knowledge, has studied
“German philosophy as far as his youth and his distance
“from us would permit, and is now just in that stage of
“development which is the most interesting and the most
“critical in life. It had been his wish to go to Germany,
“in order to see things for himself, and especially to get

* It is probably superfluous for me to state,—but for fear of any possible uncertainty I think it well explicitly to do so,—that always, except where inconsistent with the context, I use the word PHILOSOPHY in its widest sense, as co-inclusive of THEOLOGY and ETHICS.

† Solger's nachgelassene Schriften und Briefwechsel; herausgegeben von L. Tieck und F. v. Raumer, vol. i. pp. 550—52. See also p. 557.

“ more exact information about the history of our modern
“ philosophy ; but, having been appointed a teacher of
“ anatomy in London, he had resigned himself to deferring
“ for years the realisation of that hope. In the talks
“ which I had with him, your name very naturally was
“ mentioned ; and what I said about you, and your book
“ which I showed my young friend, all filled him with the
“ most enthusiastic desire of knowing you in person.
“ Suddenly he made up his mind that before October he
“ would go to Berlin to see you. Meanwhile I had to go
“ for a trip into the country, and when I came back after
“ a fortnight’s absence, he, to my surprise, had already
“ started—so strong was his attraction towards Germany
“ and yourself. We had agreed that I was to give him a
“ letter to you, to explain what he had at heart, and par-
“ ticularly to ask you if you could not perhaps manage to
“ give him a course—*privatissimum*—in the history of
“ philosophy. I am now more than a day after the fair,
“ but even if I had written from London (which was quite
“ impossible) my letter would hardly have reached you
“ before his arrival. Of course before now you have made
“ acquaintance with this loveable young man, and I
“ heartily hope you have, somehow or other, been able
“ to satisfy his burning thirst for knowledge. Few men
“ are as much in earnest about it as he is ; and with
“ him this is the more noticeable because so few of his
“ countrymen can understand one’s caring a bit about
“ the matter unless for some collateral object. I entreat
“ you to do what you can towards fulfilling his wishes, for
“ I feel sure that no one but you—with your largeness,
“ solidity, and clearness—can help him. Green can at
“ least get thus much, that afterwards he will be able to

“work at home with more confidence and success; and,
 “believe me, he is worth a good and wise man’s taking
 “trouble for him. This is what I had to beg of you.
 “You must forgive me if I am tempted to send you
 “young men. There are so many occasions when it
 “comes naturally to me to speak to them of my reverence
 “for your intellect, and of my friendship and love for you.
 “How your book has delighted me!”

In this expedition to Berlin, Mr. Green was accompanied by his wife; and on their way back to England they loitered a little, in order to renew, both together, the pleasant associations which he had formed during his former long stay in North Germany. Meanwhile the object of the visit to Berlin (where Tieck had afterwards joined them) had been well attained.*

First ac-
 quaintance
 with Cole-
 ridge.

And here I may note that before this time Mr. Green’s acquaintance with Coleridge had begun, though certainly as yet it was not intimate. I cannot learn the exact date or circumstances of its commencement. But Tieck’s visit to England (during which he and Cole-

* That Mr. Green produced on Solger the same sort of impression as he had produced on Tieck, may be gathered from a slight allusion to him which Solger makes in a letter to Tieck shortly after the breaking-up of their party:—“Not long after you left us, who should come but a
 “Frenchman—M. Cousin, Professor of Philosophy at the University of
 “Paris, who was making a philosophical tour through Germany, in
 “order to learn here for himself something of our state of affairs. It
 “was a sore change from our gallant Green, who had left us the day after
 “you went. One of M. Cousin’s first questions was—*Monsieur, quel*
est votre système? He was often with me during the week or fort-
 “night of his stay, and I found it the very devil to have to philosophise
 “with him in French. Yet I didn’t dislike his being here. He was
 “more earnest than most Frenchmen, and told me lots of interesting
 “things about politics and literature in France.”

ridge met more than once at Mr. Green's house) must greatly have promoted the intimacy, if it did not actually occasion the first acquaintance, between Coleridge and his future disciple.

Early in 1820 Mr. Henry Cline (who, eight years before, had succeeded his father as Surgeon to St. Thomas's Hospital) died unexpectedly when only 39 years old. On the 27th of May Mr. Green was elected to the vacant Surgeonship, and thereupon became associated with Sir Astley Cooper as joint Lecturer on Anatomy and Surgery. Already his Demonstratorship of Anatomy had brought him before the profession as a writer; for he had published (first anonymously, under the title of *Outlines of a Course of Dissections*, and afterwards, with his name, under the title of *The Dissector's Manual*) two editions of a handbook of dissecting-room anatomy. This book—which, by-the-by, is remarkably compendious and exact, and is illustrated by plates of more than average usefulness, has long been superseded by other more developed works of the same kind; but it deserves notice that Mr. Green's manual was the first of such attempts to provide in our literature for a very evident want of the medical student, and that it became the pattern to a long and valuable train of successors. The concluding paragraph of the preface is, I think, worth quoting here as an illustration of the tone of Mr. Green's teaching at that period of his career:—"In whatever age or country the knowledge of Anatomy has been absent, medical science has existed in one or other of two extremes: it has either groped in detail with a blind empiricism, or blundered by wholesale with a dreaming and presumptuous arro-

Promotion
at St.
Thomas's
Hospital.

“gance ; in the one case sinking below experience ; in the
 “other, soaring above it into the empty regions of ab-
 “straction. That we are enabled to take the middle path,
 “we owe to the courage and industry of the great anato-
 “mists before us, more than to any other single cause.
 “But there is one use to be derived from the study as at
 “present pursued, which is negative indeed, but of scarcely
 “less importance to the students as men, than the other
 “and positive uses are to them as medical practitioners.
 “By serious reflection on what Anatomy has not taught,
 “and what no Anatomy ever can teach us, the great laws
 “of life, we learn not to over-value the senses so as to
 “forget the higher faculties of our nature, at the very time
 “that we are most sensible that it is only by combining
 “these with the exercise of the senses, that we can exert
 “ourselves to any purposes of utility or of duty in that
 “world of the senses which is the appointed sphere of
 “both.”

Profes-
sional pro-
gress.

Mr. Green's merits now began to make rapid way in procuring him the confidence of his profession and the public. In 1824 he was appointed Professor of Anatomy to the Royal College of Surgeons, and delivered twelve lectures at the College—the first section of a comprehensive course (to be extended over four years) on the Comparative Anatomy of the Animal Kingdom. In 1825 he was elected a Fellow of the Royal Society. Also in 1825 he was appointed Professor of Anatomy to the Royal Academy, and in the last months of that year delivered in Somerset House, where the Academy then had its rooms, the first of a long succession of annual courses (to which I shall presently again refer) on Anatomy

in its relation to the Fine Arts. Ere now, too, he had acquired a considerable and increasing share in the private practice of his profession.

Before I speak in detail of the courses of lectures which date from 1824 and 1825, I am obliged to note in passing that the year 1825 had one less pleasant association. In January, in the middle of the medical session, Sir A. Cooper (influenced, I believe, by some unfounded alarm as to the state of his health) had abruptly resigned his share of the anatomical and surgical lectures at St. Thomas's Hospital, and had proposed to obtain for his nephews, Mr. Key and Mr. Bransby Cooper, the succession to his share of this important "partnership." But though Mr. Green seconded Sir Astley's recommendations in the matter, the authorities of the Hospital would not appoint Mr. Bransby Cooper to the share proposed for him in this arrangement. Hereupon Sir Astley Cooper, getting very angry in his disappointment, determined, with his nephews, to create at Guy's Hospital (which had hitherto been practically one with St. Thomas's) a separate lecturing establishment in rivalry with the school which he had left; and, as a museum was necessary for this purpose, he proposed to carry away from St. Thomas's half of the partnership-museum which was there as the necessary apparatus of instruction. In his anger he forgot that the articles of agreement, under which he had been lecturing for the last two-and-twenty years, were framed with very particular stringency against any division of the museum; i. e. the museum was to "form one inseparable collection," and, if either of the two proprietors died or became incapable of teaching, his share in the

Schism
in the
Borough
Medical
School.

museum was to devolve on the survivor, and be paid for by a fixed sum of money. That Sir Astley's claim was altogether untenable under the agreement, and that it was one which could not properly be conceded, was, I think, what any dispassionate person might have seen at a single glance. But Sir Astley and his nephews were not dispassionate. And they wrote and said a great deal which they must soon have wished unwritten and unsaid. And the quarrel extended to the governments of the two hospitals. And at last Mr. Green, after months of extreme provocation borne with the utmost patience, had no alternative but to publish a pamphlet,* in which, with

* The pamphlet is entitled, *A Letter to Sir Astley Cooper, Bart. F.R.S. &c., on certain proceedings connected with the establishment of an Anatomical and Surgical School at Guy's Hospital*. The last page of the letter is so characteristic of the writer, that (as it can not now hurt any one's feelings) I think I may properly subjoin it. "Most anxious
" as I have been," he says, "throughout this letter, to avoid every
" unnecessary reference to myself, and my own feelings, I yet cannot
" conclude it without indulging a complaint that I should thus have
" been forced into a contest, alien from my habits and disposition; and
" which, not only without provocation on my part, but in spite of my
" most solicitous efforts to prevent or arrest it, has distracted my
" attention from my professional duties, and the tranquil pursuits that
" would qualify me for their honourable fulfilment. From my first
" admission into the profession, it has been my deepest conviction that
" there exist but two ways by which the high rank which our pro-
" fession now enjoys in the estimation of the country can be main-
" tained; first, its intimate connexion with the liberal sciences, cultivated
" without hire or compulsion, on the score of their own worth and dig-
" nifying influences; and secondly, by the correspondent conduct and
" character of its individual members. It was these that first acquired
" for us the title and privileges of GENTLEMEN: and by these alone can
" we hope to retain the name. Without these adjuncts, surgery itself,
" great and irresistible as its claims are on the ground of utility, would
" still be what it once was, and its name still implies—Chirurgery,

admirable temper and dignity, he fully vindicated his own position in the matter, and took Sir Astley Cooper very gravely to task for the course which he had followed. This pamphlet was left unanswered, and was in fact unanswerable. I believe that at last the justice of Mr. Green's view was conceded even by his opponents. At all events, after some years, perfectly cordial relations were re-established between him and them ;*—Sir Astley always treating him with marked distinction, and Mr. Bransby Cooper in particular always evincing the warmest liking as well as respect for him.

Of Mr. Green's Lectures on the Animal Kingdom, delivered at the Royal College of Surgeons in the years 1824—1827, I cannot from my own knowledge venture to speak.

Lectures
at the
College of
Surgeons.

“ Handicraft, a Trade. Skill in a trade, however great it may be, can
“ confer no claim to the name of GENTLEMAN on men whose conduct
“ gives proof that their motives and objects are those of mere tradesmen.
“ But we, Sir, have pledged ourselves by a public and solemn oath, thus
“ addressed to us :—‘ You swear that you will demean yourself honour-
“ ably in the practice of your profession; and, to the utmost of your
“ power, maintain the dignity and welfare of the college. So help you
“ God!’ And I can most truly affirm that I have written this letter
“ under the conviction that the verdict which society shall give on our
“ fidelity and strict adherence to this oath, is the most important and
“ sole permanent result of the publicity by which this dissension has
“ been so injudiciously aggravated, in opposition alike to the wishes and
“ judgment of J. H. G.”

* I have reason to believe that the reconciliation was effected under circumstances equally creditable to both parties. My friend Dr. Whiteley, of Cannes, a St. Thomas's student of those days, who had opportunity of knowing the facts, tells me that the first move towards reconciliation was made by the Coopers in 1827, under influence of the enthusiasm of admiration to which they were moved by Mr. Green's opening of his last set of lectures at the College of Surgeons.

They were given long before I was even a student of the profession; and with exception of some fragments, hereafter to be mentioned, nothing of them has appeared in print; nor in manuscript have I seen more of them than the two eminently interesting lectures which related to the Natural History of Man. But my own want of information on the subject is far more than compensated by my having the opportunity of inserting here the following extract from a letter with which Professor Owen has had the kindness to favor me, stating his recollection of the lectures. “With reference to the course of Lectures which “that noble and great intellect raised and honoured our “Surgeons’ College by delivering in its theatre, the first “characteristic (in the use of the Historian of Zootomy) “of this course—extended over 4 years—is that it embraced the entire range of the Science. For the first “time in England the comparative Anatomy of the whole “Animal Kingdom was described, and illustrated by such “a series of enlarged and coloured diagrams as had never “before been seen. The vast array of facts was linked by “reference to the underlying Unity, as it had been advocated and illustrated by Oken and Carus. The Comparative Anatomy of the latter was the text-book of the “course. Dr. Barclay had given summer courses on Comparative Anatomy, at Edinburgh, aiming at completeness “but fragmentary in the Invertebrate part. Mr. Green gave “the first complete course in this country, commencing in “1824. . . . I heard the first as a Medical Student, and “the two last (*Aves* and *Mammalia*) as an Assistant, “being then attached to the Museum.

“Every previous Professor of Anatomy had given some “part or fragment of Zootomy in relation to his special

“physiological or teleological views: Mr. Green’s course
 “combined the totality, with the unity of the higher philo-
 “sophy, of the Science; so far as the latter had been then
 “based upon embryological and other researches. To
 “such researches, facts or bodies of facts, I am not aware
 “that Mr. Green added anything notable. Many dissections
 “were made by his Assistants (Cane, Canton, W. H. Clift,
 “and myself in 1826 and 1827) but they were to illustrate
 “known organizations, or as subjects for the diagrams.
 “The then want of knowledge of the species which
 “Hunter had dissected, and derived preparations from,
 “was keenly felt; and the general terms ‘sea-slug,’
 “‘priapism,’ ‘Banks’s odd fish,’ &c. &c., were quaintly
 “and characteristically quizzed by Green, while thoroughly
 “appreciating and admiring the perspicuity of the ex-
 “position of structures in the preparations; and he used
 “to lament that he could make so little use of the physio-
 “logical series in its then uncatalogued state. Green
 “illustrated in this grand Course (12 Lectures per annum)
 “CARUS rather than HUNTER: the dawning philosophy
 “of Anatomy in Germany, rather than the teleology which
 “Abernethy and Carlisle had previously given as Hun-
 “terian, not knowing their master.”

Of Mr. Green’s lectures at the Royal Academy (where
 he retained his professorship till 1852) I can speak from
 my own recollection, as having attended several of the
 courses; and to this I am glad to add that all the more
 important lectures which I heard are still existing in
 manuscript.*

Lectures
 at the
 Royal
 Academy.

* Two of them, on Beauty and Expression, were published in the
Athenæum, of Dec. 16th and Dec. 23d, 1843.

His teaching at the Royal Academy, like all his teaching, was characterised by a very deep-going and comprehensive treatment of his subject. He recognised of course that the details of anatomy (even of mere artistic surface-anatomy) could not be adequately spoken of, much less conveyed, in the six formal lectures which he had annually to deliver. He knew, on the contrary, that the art-student who would learn anatomy must do so, if not with actual dissection, at least with reiterated manipulation, as well as inspection, of his model,—helped perhaps by familiar interchange of question and answer with his teacher, but essentially advanced by dwelling for himself prolixly on part after part, and by scrutinizing for himself again and again with eye and hand every fact of form and texture. And seeing all this, he did not attempt what would have been impossible, nor aim at sending away the more superficial of his auditors with a belief that in six short lessons they had learnt what only long personal study could give them. Pre-eminently he sought to impress on the art-students who listened to him the spirit rather than the diagrams, the hermeneutics rather than the chapters and verses, of anatomy. Not indeed that he omitted to survey, or surveyed otherwise than admirably, the composition and mechanism of the human body; and perhaps no mere anatomist ever taught more effectively than he, what are the bodily materials and arrangement which represent the aptitude for strength and equipoise and grace, or what respective shares are contributed by bone, muscle and tegument, to the various visible phenomena of form and gesture and attitude and action. But to this he did not confine himself. Specially in the one or two introductory

or closing lectures of each course, but at times also by digression in other lectures, he set before his hearers that which to them as Artists was matter of at least equal concern—the science of interpreting human expression and appreciating human beauty. His discourses on these subjects were very deeply considered. Necessarily they were of wide philosophical range. And they were enriched with numberless illustrative references to the history of Art, and to the master-works of ancient and modern sculpture and painting. Thus at one time, going to the very root of *Æsthetics* with a thoroughness which is not too familiar to English ears, he would discuss the *conditions, objective and subjective, under which the sense of beauty arises*, and particularly the mental faculties which are concerned in artistic production and enjoyment. At another time, having to speak pathognomically of the *human emotions and passions*, having to follow them one by one in their operance—first as affecting the vital organs of breathing and blood-moving, and then as producing (through those organs) the respective changes of expression which outwardly mark their domination,—he would begin by speaking as a Psychologist of the normal balance of the human soul, and of the conditions of its excitability in pain or pleasure, and of the dynamics of its disturbance or self-control. And in such a lecture he would help and quicken his argument, perhaps by quoting as illustrations the aptest word-pictures of emotion from Shakspeare and Milton, or perhaps by analysing the pathognomical merits of Lionardo's masterpiece which hung in copy before him. At another time, lecturing on the æsthetical significance of the *proportions of the human body*, but not counselling a revival of

the so-called Canon of Polycleitus, he would derive from the Greek Pantheon all the illustrations of his lecture, and, going to the spiritual roots of the mythology, would discuss what various conceptions of power and beauty and enjoyment underlay the Attic Sculptor's endeavour to represent the "fair humanities" of his religion.

Mr. Green's courses of lectures at the Royal Academy were always attended by very large and very attentive audiences, and, to all but the least intelligent of his hearers, must, I think, have been sources of most valuable information and suggestion. On more than one occasion (as I see by memoranda which he left) he contemplated publishing a revised selection of them as a *System of Artistic Anatomy*. And though exactly that thing might not now be feasible, yet doubtless the finished papers which he has left would furnish a very interesting volume of lectures.

Connexion
with
King's
College.

In 1830, when King's College was established, Mr. Green was nominated Professor of Surgery in that institution. He thereupon resigned his chair of Surgery (though he retained his post as Surgeon) at St. Thomas's Hospital, and in 1831, when the College began to receive pupils, commenced his first course of lectures at the College. He held his professorship there till 1836, when, resigning it, he was elected a member of the governing Council of the College, which position he retained till his death. In connexion with his professorship at King's College, it devolved upon him in 1832 to deliver, on behalf of the professorial body, the opening address of the medical session. This address (afterwards published) * was in great part founded on the views concerning the

* London, B. Fellowes, 1832; pp. 43.

Clerisy or National Church which Coleridge had then recently advanced in his work on the Constitution of Church and State. It treated of the three chief professions—the Legal, Ecclesiastical and Medical, in their respective relations to the three corresponding sciences of Jurisprudence, Metaphysics (theological and ethical) and Physiology; and it aimed at exhibiting, both in history and in idea, the relations of the professions to one another, and their joint dependence, through their respective sciences, on the one common trunk and root of Philosophy,—“by whose unobstructed sap they can alone retain the “characters of life and growth.” From this basis the speaker proceeded to insist on the supreme desirability of having the professions taught in *Universities*;—where should be cultivated Philosophy before particular sciences, as the sciences before their respective professions;—where, as brethren of one household, the alumni should be bred in one common law of honour, and of self-respect, and of respect for each other as fellow-collegians, and of contempt for all tricks and shams and shows;—and where, by the sense of a common derivation, and the fraternising habits of a common training, the candidates of all the liberal professions would be prepared for future re-union as a *national learned class*, “every member and offset “of which will be enabled and disposed to regard the “practitioner of another profession in the same district “as a brother—as a co-operator in a different direction “to the same end, whose authority and whose influence, “whenever rightly exerted, he is bound by duty, and prepared by impulse, to support and render effectual.” By those who heard it, this address is likely to be still remembered as a wonderful oratorical display. It seemed

one continuous flow of lofty argumentative eloquence, and the delivery of it was singularly earnest and effective. To the youths who then first heard Mr. Green, it was as the opening of a new world. The writer of the present Memoir was among them—then a very unformed lad, looking forward to become in another year one of Mr. Green's surgical apprentices. To him, though now nearly a third part of a century has since elapsed, the impression is still vivid that *there* was his momentous first perception of noble faculties being nobly exercised. And though so many years have passed, he still turns with delight to the printed pages of that address, not only for its momentary power to conjure back, as in bodily presence, the honoured teacher who spoke it, but ever also for the thoughts which are in it—comprehensive and wise and elevated.

The five courses of Surgical Lectures which Mr. Green delivered at King's College were models of systematised technical teaching. With admirable method and lucidity and completeness, and with the nice discrimination and guardedness which his own large experience suggested to him, he taught us, up to the knowledge-level of the hour when he spoke, the principles of Surgical Pathology and Practice. And this was not all. In an editorial article which on occasion of Mr. Green's death appeared in one of our medical journals, and which I probably am not wrong in attributing to a gentleman, now of standing in the profession, who was formerly among the most intelligent students in the medical school of King's College,—the writer truly observes :—" It is impossible to overrate the influence
" for good which such a teacher must have exerted over the
" minds—say, rather, over the whole hearts and being of
" the hundreds of young men who flocked to his teaching.

“ Whilst ostensibly learning the principles of surgery, they
 “ were imbibing lessons of life and manners, taste, philo-
 “ sophy and morals ; they were taught the awful responsi-
 “ bility of their calling ; they were indoctrinated with
 “ sentiments of the highest honour.”*

Postponing for the present any mention of certain im-
 portant non-professional influences which were now tending
 to affect Mr. Green's future career, I may here conveniently
 advert to his participation (which began in 1835) in the
 disciplinary government of his branch of the Medical Pro-
 fession. In 1835, the Council of the Royal College of
 Surgeons voted him (and it was for life) into their body.
 In 1846 he succeeded to a seat, which was also for life, at
 the Board of Examiners at the College. Twice in after-
 years he filled the annual office of President of the College,
 —namely in the years 1849-50 and 1858-9. Twice also,
 namely in 1840 and 1847, he appeared before the College
 as Hunterian Orator.

Council-
 lorship at
 the College
 of Sur-
 geons.

Of the part taken by him in the councils of the College
 during the eighteen years for which he had a voice in
 them, I can speak only in the most general terms. The
 meetings of the College Council are held in private ; and,
 whatever I may have heard of differences of opinion at
 those meetings, I have no means of which I can publicly
 avail myself for separating Mr. Green's individual conduct
 there from the overt official acts of the body. For reasons
 which members of my profession can well appreciate, I
 wish that I could exhibit such a separation. As it is,
 I must content myself with referring to his published
 opinions in matters of medical polity ;—for no one who

* *Medical Times and Gazette*, December 19th, 1863.

had any acquaintance with him will doubt but that in the secret Councils of the College his voice was uniformly raised in the sense of those published opinions. Particularly I may refer to a pamphlet which he published in 1841, under the title of *Touchstone of Medical Reform*, containing three letters addressed by him to Sir Robert Harry Inglis, then member for the University of Oxford;* and I may also refer to the opinions which on various occasions he expressed before such Parliamentary Committees as were taking evidence on questions of medical reform. Always he will be seen holding up to the profession and to the public the highest conceivable standards of professional excellence, and always advocating means by which the medical profession might be raised in its education and moral tone. Some of the wishes which he thus expressed were eventually in part realized, and this, no doubt, much through his exertions. Thus,—that decent preliminary education should be required of all persons purposing to enter the medical profession, was a need which he had earnestly represented for years before it was practically recognised. And again, the amendment which the constitution of the College of Surgeons received from its charter of 1843 was in almost exact accordance with suggestions which he had made, in his pamphlet of 1841, for the establishment of a class of Fellows who

* This was Mr. Green's third appearance as a writer on the subject of Medical Reform. In 1831 he had published, under the title of *Distinction without Separation*, a Letter to the President of the College of Surgeons, on the then state of the Profession. And in 1834 he published *Suggestions respecting the intended plan of Medical Reform, respectfully offered to the Legislature and the Profession*. The pamphlet of 1841, to which I have referred in the text, contains, I think, all that was of permanent interest in the two earlier publications.

(with higher professional qualifications than the mass of Members) should in future be the electors of the Council. Often, on the other hand, his wishes and endeavours were doomed to disappointment. Against those fragmentary professional qualifications, which constitute titles to practise Medicine or Surgery in the United Kingdom, and which distinguish our professional system from that of other civilised countries,—so that we may have Surgeons with no rudiments of medical knowledge, and Physicians or Apothecaries with no rudiments of surgical knowledge,—against this, he, from first to last, protested in vain. And thus, too, I feel sure it must have been in a matter which more specially concerned his own College. For I know it to have been against his judgment, that the Council of the College of Surgeons, charged with the high trust of providing for the due qualification of persons who by that portal shall enter the medical profession, persisted in regarding its own ranks as the only source from which to appoint examiners for this important purpose;—a view, in which, alas! it still persists, though involving the absurdity and scandal, that persons the most removed from contemporary scientific research (superannuated hospital-surgeons, and the like) are thus the College's sole examiners in those daily-growing sciences of Physiology and Pathology which the College affects to promote in the interests of the profession and the public.

Among the positive fruits of Mr. Green's Councillorship at the College of Surgeons, must be counted his two Hunterian Orations, of which I have now to speak. For the hearing of them, there came together perhaps the most crowded assemblages, which any of our great pro-

Hunterian
Orations.

fessional ceremonies could attract, of educated and influential persons. And Mr. Green would not willingly waive any so good opportunity of making known what were his views of the broad principles of professional polity and ethics. On both occasions, accordingly, he reminded his hearers what obligations of study, and what moral obligations, have to be fulfilled by the man whose *profession* is to be distinguishable from a *trade*. And on both occasions the anniversary permitted him not inaptly to remind the College, that to imitate the unmercenary spirit of Hunter's scientific labours is the one effective condition for keeping in force the charters and statutes by which the profession of Surgery has been disincorporated from amid the Guild of Barbers. But on neither occasion was it his main object to speak of matters like that, nor could he do so otherwise than in a few emphatic perorational sentences. For each Oration distinctively had its own philosophical object. And concerning these respective special objects, I may the rather be allowed to speak here in some detail, as the Orations, in their published form, have now for a long time been out of circulation.

First Hunterian
Oration.

Of the first Oration (subsequently published,* with preface and appendices, under the title of VITAL DYNAMICS) the main object was to discuss the mental faculties and processes which are concerned in scientific discovery, and especially to insist on the import of the pure Reason as the light by which Nature is to be understood. He wished (he said) to reconcile the study of Nature with the requirements of our moral being, and to

* London, Wm. Pickering, 1840; pp. 165.

connect science—"which even as the noblest offspring of our intellect is but a fragment of our humanity"—with the philosophy of Coleridge,—a philosophy, he continued, "which, as far as my knowledge extends, pre-eminently, if not alone, gives life and reality to metaphysical pursuits, by showing their birth, growth, and requisite foundation in the whole man, head and heart." The Oration of course included a statement of the doctrine of *Ideas*. This word, he said, may sound strangely to those for whom "Idea" has no other meaning than that with which Locke used it, as "whatsoever is the object of the understanding when a man thinks;" but the advantage of changing it would be equivocal,—“since this term, or some substitute less authorized by philosophical usage, is imperatively required in dynamical philosophy in order to designate powers as predetermining and constructive, as intelligential acts, *δυνάμεις νοεραὶ καὶ νοηταὶ*, and as *formæ formantes* or laws." And proposing in his Oration to determine "the import of Ideas in connexion with the powers of nature," he employed the term "to designate those energetic acts of omnipotent wisdom which as laws of nature (*formæ formantes*) are at once creative and conservative of a nature, ever changing and yet ever essentially the same." Only when interpreted in their relations to Laws and Causes, could he admit the phenomena of nature to be matter of scientific experience. And to interpret them in those relations (he argued) is not a necessary fruit of the heaping together, however industriously, of sense-impressions however numerous,—is not a mere act of generalisation and abstraction of like and unlike,—is not a function of the human understanding as a "faculty judging according to sense,"—but is

something which derives its essence from sources supersensuous and impersonal. Expounding then in a sense widely different from the popular one the gist of the Baconian philosophy, and insisting that the famous *inquisitio formarum* aimed at "somewhat other and more than the mental substantiation of facts under whatever degree of generality," he calls Bacon to witness that the power by which men attain to the interpretative insight of nature is "the *lux intellectus*, the *lumen siccum*, the pure and impersonal reason, freed from all the various idols enumerated by our great legislator of science, the *idola tribus*, *specus*, *fori*, *theatri*,—that is, freed from the limits, the passions, the prejudices, the peculiar habits of the human understanding, natural or acquired, but, above all, from the *idola intellectus*, from the arrogance which leads man to take the forms and mechanism of his own mere reflective faculty as the measure of Nature and Deity." And presently he thus sums up the essentials of his own creed in the matter:—

"Man finds, in examining the facts of his consciousness, and as the essential character of his rationality, the capability of apprehending truths universal, necessary, absolute; the grounds of which being underived from, must be antecedent, and presupposed in order, to experience:—man finds in himself the capability of inferring the reality of that which transcends his sensuous experience, and of contemplating causality, efficiency, permanent being, law, order, finality, unity:—man finds in himself the capability of apprehending, in a world of relations, the supra-relative; in a world of dependencies, the unconditional; in a world of flux and change, the immutable; in a world of imperfec-

" tions, the perfect;—man recognises in himself, as the
 " privilege and need of a rational mind, the capability
 " of enlarging his thoughts to the universe, infinite as
 " the Omnipresence of God 'upholding all things by the
 " word of his power;' the capability of raising his mind
 " to the Supreme as the Absolute Will, causative of all
 " reality in the eternal plenitude of being. And it is
 " in meditating on the conditions and cause of this
 " capability, that man becomes conscious of an operance
 " in and on his own mind, of the downshine of a light
 " from above, which is the power of Living Truth, and
 " which, in irradiating and actuating the human mind,
 " becomes for it Reason;—yea! which is the revelation
 " of those divine acts, at once causative and intelligential,
 " which he recognises as first principles, ultimate truths, as
 " ideas for the human mind, and constitutive laws in nature.
 " It is by virtue of this Reason, that we hear the voice
 " and legislative words of the Creator, sounding through
 " the universe; and it is in the sabbath stillness of our
 " intellectual being, when the busy hum of the world
 " is hushed, that the strains of this divine music penetrate
 " the soul attuned by meditation to move responsive to
 " its harmony."

By way of illustration of the above-described argument, Mr. Green stated his conception of the Laws which govern the constitution of the animal kingdom, and determine the mutual similitudes and dissimilitudes of its various component forms, and regulate the successive phases of individual organic development. Also, of course, he abundantly illustrated his argument by references to the history of science,—especially to the discoveries of Newton, Dalton, and Faraday, and (as

beseeemed the occasion) to the labours of John Hunter. He claimed it to be Hunter's peculiar and eminent merit, "that he had raised his mind to the apprehension of life as a law, in aid of a science of Vital Dynamics, and as the means of giving scientific unity to the facts of living nature. In what other sense can we understand either his assertion that 'life is a principle independent of organization,' or the purport of the magnificent commentary on his system, the Hunterian Museum? . . . By contemplating life (as Newton had taught the mechanic philosophers to contemplate gravitation) not as a thing, nor as a spirit, neither as a subtle fluid, nor as an intelligent soul, but as a law, he laid the foundation of scientific physiology; and in that very conception of a law taught us that life is a power anterior in the order of thought to the organization, which it animates, sustains, and repairs,—a power originitive and constructive of the organization, in which it continues to manifest itself in all the forms and functions of animated being. This great Idea never ceased to work in him as his genius and governing spirit; and if in his printed works the one directing thought seems occasionally to elude his grasp, yet in the astonishing preparations for his Museum we find him constructing it for scientific apprehension out of the 'unspoken alphabet of nature' and exhibiting the legislative idea in the 'mode and measure of its working,' by bringing together the significant forms and types of life and organic existence." Again—"if Hunter left the physiological part of his great work incomplete, it was only because in obedience to the more pressing exigencies of the profession to which

“ he belonged, he projected a revolution in Pathology,
 “ of carrying into the obscure recesses of disease the torch
 “ of the same philosophy, by which he had already
 “ successfully shed a light upon the hitherto mysterious
 “ agencies of vitality. . . . And if the attribute of inven-
 “ tive genius be his, who unequivocally establishes a
 “ principle, as including, anticipating, and explaining all,
 “ and even its possible and yet unknown results, we
 “ venture to claim this distinction for Hunter, in extend-
 “ ing to Pathology the same principle which had happily
 “ guided his physiological researches, by treating disease
 “ as a problem of Vital Dynamics, and by seeking its
 “ intelligibility in the unity of the law of life. . . . I
 “ do not hesitate to affirm that one of the main aids
 “ in constructing a science of Pathology will be by
 “ adopting as its ground the principle throughout implied
 “ in Hunter’s researches ; that is, by recognising in life
 “ a power as of an agent at once contrariant to, and
 “ coerced by, the law which actuates and directs it ;
 “ and by treating disease as a problem, the solution of
 “ which is to be sought in the great laws of life, as
 “ perturbations indeed of the order which these laws
 “ maintain, derived from the imperfection of the subject,
 “ but perturbations to be explained by laws, which, like
 “ those of the solar system, at once permit and correct
 “ the deviations. And if after witnessing the vain strivings
 “ of this contrariant agency, betrayed in disorder, deformity,
 “ degeneracy, and disease, the medical philosopher medi-
 “ tates on the laws which produce the order, permanence,
 “ regularity, and beauty of organic life, he will feel as
 “ if, after the toils, vexations, and annoyances of the
 “ day, he had withdrawn with the astronomer to his

“ observatory, and in the hushed stillness of some balmy
 “ night, directing his delighted gaze to the serene spectacle
 “ of his star-lit sky, contemplated the mystic planetary
 “ dance, which reveals more sensibly, though not more
 “ certainly than animated being, the eternal and un-
 “ changeable laws impressed on nature by nature’s
 “ Architect and Creator. Thence turning back to his
 “ own pursuits, he will accord to Hunter the high merit
 “ of being at least the Kepler of his science, which only
 “ awaits its Newton in order to complete the scientific
 “ unity, already instinctively anticipated by Hunter’s
 “ genius.”

The above-described Oration in its printed form has some of its arguments further developed in the Appendices which (as I have stated) were published with it. First, with reference to notions of cause and efficiency, there is a paper on the *Evolution of the Idea of Power*. Next come three papers respectively relating to *Transcendental Anatomy*, to the *Gradation of Animal Life*, and to the *Characteristics of Man’s Bodily Frame*,—the last being the substance of a Lecture which the Author had given at the Royal Academy, and the others being either taken from or founded on Lectures which he had given as Professor of Anatomy at the College of Surgeons. Fifthly, there is a paper discussing, more fully than the limits of the Oration itself had permitted, the spirit of *Hunter’s Pathology*. Sixthly, there is a discourse on *Instinct*, which originally formed part of one of the Author’s lectures at the College of Surgeons, and to which Coleridge had referred in his *Aids to Reflexion* as agreeing with his own views of the matter. And lastly, in expansion of some of the physiological arguments of the Oration,

there is a *Recapitulatory Lecture* of the last course which the Author had given at the College of Surgeons.

Of the second Hunterian Oration (subsequently published,* with Appendices, under the title of MENTAL DYNAMICS) the main object was to show—and generally on Coleridgian principles—what are the proper aims and means of that so-called Liberal Education by which the mind is best prepared for the scientific following of a profession. Here, as in all true education, it is (he maintained) the teacher's ultimate aim, not to have merely infused certain prepared materials of information, but rather to have awakened the faculties of the intellect, and to have disciplined them in habits of conscious reflexion; and not even genius † is an exception to the rule, that by cultivation “we may preserve the freshness, improve the “vigour, and favour the originative faculties of the mind.” Premising then that the first business of the teacher is to educe and exercise those elementary factors of thought

Second
Hunterian
Oration.

* London, Wm. Pickering, 1847; pp. 65.

† “Instead, then, of treating Genius as a mysterious endowment and “occult faculty, I would say that it far rather designates the healthy “balance and proportionate development of all the powers and faculties “that are essentially human, and their harmonious constitution to one. “Hence a more correct and significant expression for what we mean by “Genius would be Individuality; since hereby we understand that union “of Free-will and Reason, by which man consciously affirms his Per- “sonality, and therein continuously asserts his sphere of thought and “act:—and it would be at least difficult to discover a more appropriate “meaning for genius than the achievement of this individuality accord- “ing to the idea, or the approximation to its excellence, which consists “in a higher potentiation and happier combination of the human powers, “intelligent and active, by the animating, modifying, and intensive “energy of the sole font of original power within us, which we name free “or moral Will.”

which we name Abstraction and Generalization, he showed how this may be done in an early attentive use of words, and glanced at the metaphysical beliefs which are implied in the simplest grammatical forms, and which these forms may suggest for speculation. He followed the same line of argument with regard to various other matters which may be part of a liberal early education ;—to the various branches of *Natural History*, as popularly studied,—to *Human History*, “exhibited as the great scheme of Providence, which has been, and ever is, operative in the “moral education of man, considered as the mind and “soul of the planet,”—to *Mathematics*, as, according to Plato, “the first purification of the soul by abstracting the attention from the accidents of the senses,”—to *Logic*, as “the art of conclusive discourse,” and “the process by which we deduce from known truths all that they legitimately comprehend,”—to *Literature*, as “enabling a man “to collect into his own individuality the discoveries, the “mental wealth, the ennobling affections, and the models “of the wise and great of countries and states under the “most auspicious circumstances,”—and to *Languages*, whereof each additional one mastered would be to its possessor “as it were a new limb without the deformity;”—and he shewed how, during various of these studies and by their aid, not only Abstraction and Generalisation, but higher mental faculties, and especially the Judgment, might be developed and consciously exercised. And finally, he spoke of the pure Reason, and of the *Ideas* which philosophical meditation might bring into distinct consciousness for the student, and of the relations of the pure Reason to Science.

Among the Appendices with which this second Oration

was published, is a paper in which the Author discusses the subject of *Self-Consciousness*, and incidentally also discusses what are the main difficulties which have hitherto opposed themselves to the establishment of a sound philosophy ;—"difficulties, implying doctrines so incompatible " with the natural expectation that philosophy is (or ought " to be) the complement of common sense, as to deter men " in general from the pursuit." That enumeration of the influences which Mr. Green deemed most hostile to true philosophy might perhaps usefully be read in introduction to the following work ; but it will be seen that he himself has quoted it at the end of the first chapter of his second part, and I therefore refrain from inserting it here.

For the convenience of keeping together in narrative the matters to which my last few pages have related, I have reserved till now the mention of a sort of second life, to which, for very long before the years of which I have last spoken, Mr. Green's common professional life had been gradually becoming more and more subordinate. So far back as 1817, when he was not yet twenty-six years old, we saw him so imbued with a passion for speculative philosophy, that, notwithstanding all other claims on his strength, he must needs spend his autumn holiday in a studious visit to the stronghold of German Transcendentalism. We saw, too, that probably at about the same time he first came within near range of Coleridge's fascinating genius. And now we have to trace the influence which, from then onwards, was exerted on his life by the powerful and increasing undercurrent of his love for abstract philosophy.

Continued
studies in
philoso-
phy.

Inter-
course
with Cole-
ridge.

Whatever may have been (and I do not know them) the steps of his first intimacy with Coleridge, a time soon began when he was an habitual and frequent visitor to Highgate. And this he continued to be during the remaining term of Coleridge's life. Even in the years of his heaviest professional labour—even in those years (from 1824 onward) when he was doing an amount of professional work which nothing but his extreme mental discipline and method could have enabled him to accomplish and live,—even then his collateral studies in philosophy were continued. From his lectures, of which he was giving sometimes as many as eleven in a week, and from his private practice, of which he was getting more and more, and from his hospital-practice, which he was conducting with eminent energy and success,—from these aggregate occasions of an almost exhaustive fatigue, he turned thirsting, as for recreation and vigour, to the “fountains of divine philosophy.” Invariably he spent with Coleridge—they two alone at their work—many hours of every week, in talk of pupil and master. And so, year after year, he sat at the feet of his Gamaliel, getting more and more insight of the teacher's beliefs and aspirations, till, in 1834, two events occurred which determined the remaining course of his life. On the one hand, his father died, and he thus became possessed of amply sufficient means for his profession to be no longer needful to his maintenance. On the other hand, Coleridge himself died. And the language of Coleridge's last will and testament, together no doubt with verbal communications which had passed, imposed on Mr. Green what he accepted as an obligation to devote, so far as necessary, the whole remaining strength and earnestness of his life to the one task of systematising,

Effect of
Coleridge's
death and
bequests.

developing and establishing, the doctrines of the Coleridgean philosophy.*

Influenced by these circumstances, he shortly determined to withdraw from the private practice of his profession. His steps in fulfilment of this resolve were taken in 1836. It was then (as I have stated) that he resigned

Retirement from private practice.

* To Mr. Green, as trustee for Coleridge's children, Coleridge (by will dated Sept. 17th, 1829) leaves for sale, in order to investment, all, except trifles, of which he dies possessed, including books and manuscripts. But as regards the books—"inasmuch as their chief value will be dependent on his possession of them"—Mr. Green is to "have the option of purchasing the same at such price as he shall himself determine." And his discretion is to determine whether "to publish any of the notes or writings made by me in the same books or any of them, or to publish any other manuscripts or writings of mine, or any letters of mine should any be hereafter collected from or supplied by my friends and correspondents." A codicil dated July 2d, 1830, contained the following paragraph:—"On revising this my will, there seemed at first some reason to apprehend that in the above disposition of my books as above determined, I might have imposed on my executor a too delicate office; but on the other hand, the motive from the peculiar character of the books is so evident, and the reverential sense which all my children entertain of Mr. Green's character, both as the personal friend of their father and as the man most intimate with their father's intellectual labours and aspirations, I believe will be such as will I trust be sufficient to preclude any delicacy that might result from the said disposition." It may be convenient here to mention, as the direct results of the provisions of this will;—first, that Mr. Green added to his own already large library the books to which Coleridge's bequest referred—books often abundantly annotated by their late possessor; and secondly, that from the annotated books and other writings which thus passed into Mr. Green's possession there came the publication of Coleridge's two posthumous works—*The Literary Remains*, in four volumes, and the *Confessions of an Inquiring Spirit*,—to the latter of which works (in its second edition) Mr. Green prefixed a preface of 38 pages, relating particularly to the question of the author's originality in points where he was in accord with Lessing.

his professorship of surgery at King's College. Then, too, he gave up his London house—only retaining chambers in it for his occasional use when in town, and established his home at Hadley, at the house known as *The Mount*, where he continued resident till his death.

Retirement from private practice was no loss to Mr. Green. Doubtless he might have continued to make from it a large and increasing income—might, on at least equal terms, have divided its highest metropolitan honours with only some two or three elder, though not abler, competitors. But to him, wealthy as he now was, the emoluments of private practice were no adequate set-off against its restraints and obligations. Probably for many years he had been (to say the least of it) very indifferent to that form of professional success; and of late he had scarcely disguised that it was irksome to him. To the profession, however, this retirement of his was a great loss; and I remember to have heard the late Sir Benjamin Brodie, at a large professional meeting, publicly lament it as such. For, so great are the temptations, to which the junior members of the medical profession are exposed, to do acts of unworthy competition and claptrap, that it is of signal importance to our entire body, that those of us who are most in the public eye, as the leaders of private practice, should be spotless examples of honour as well as the highest standards of mere technical ability.

Further
subordi-
nation of
surgical
to philo-
sophical
pursuits.

The nearly twenty-eight years which Mr. Green lived after his removal to Hadley were years of devoted studentship in fulfilment of his adopted duty. Not that in entering upon his new life he relinquished his interest in the practical aspects of his profession, or his care for

the amendment of its institutions. On the contrary, for seventeen years afterwards, he retained his surgeonship at St. Thomas's,—where, as within a ring-fence, he had all that he could need to keep himself genuinely a surgeon ; and during no less than ten years of this time, at the very urgent and somewhat unreasonable solicitation of the then managers of the school, he held again (though reluctantly and without satisfaction to himself) a share of the course of lectures on surgery. In the government of the College of Surgeons, too, his participation, instead of having ended in 1836, had then barely begun, and (as I have already related) was for many years to go on continuously increasing. Also, his principal exertions in matters of professional reform were in times long subsequent to 1836. No doubt, however, but that from 1836 onward all such objects as the above were secondary in his mind to the one object of his philosophical studies. Especially, as he became more and more absorbed in them, he had to limit the total of work which he could afford for other matters. And thus, as the College of Surgeons got to claim more and more of his time, his connexion with the practice of St. Thomas's grew more and more superficial. Yet there was extreme unwillingness in our school that even this thread should be severed ; and it was not till 1853 that he finally ceased to hold active office with us. In the summer of that year he exchanged his post of surgeon for the honorary appointment (then first made) of Consulting-Surgeon to the Hospital ; receiving at the same time from the Governors of the Hospital the compliment of being nominated of their body. And on the 23d of June, at our annual distribution of prizes, with a voice which not even his strong will could keep from faltering with emotion, he

Eventual
retirement
from St.
Thomas's.

bade public farewell to the colleagues who held him in unmeasured regard and esteem,—to the place which was dear to him with memories and associations even from the days of his boyhood,—to the office, which any man might have been proud to hold, but which his successors may prize more highly than ever in remembering that it was filled by him.

Nature of
the task
which he
had under-
taken.

The scheme of labour which he was endeavouring to realize at Hadley was one of colossal dimensions. Outsiders, who knew in general terms that he had undertaken some literary responsibilities in fulfilment of Coleridge's will, may have supposed him engaged in merely editorial duties, with an abundant publishable written text to his hand. Coleridge himself had doubtless contributed to the existence of such a delusion: for he, with his ardent imagination, had an inveterate mental habit of magnifying the *projected* into the "half-done," and the *begun* into the "almost ready for publication:" and expressions which had been uttered by him in that sanguine spirit led admirers after his death to suppose that he must have left behind him in a relatively perfect state some Opus Magnum in philosophy, with which the utmost that Mr. Green could have to do would be to fill a few gaps, to supply a few explanations, to harmonise a few apparent discrepancies, to illustrate a few applicabilities, and so forth. But in truth the existence of any such work was mere matter of moonshine. Coleridge had not left any available written materials for setting comprehensively before the public, in his own language and in an argued form, the philosophical system with which he wished his name to

be identified.* Instead of it there were fragments—for the most part mutually inadaptably fragments, and beginnings, and studies of special subjects, and numberless notes on the margins and fly-leaves of books. True, that in unambiguous terms he had sounded the key-note of his philosophy. And there was the tradition of his oral teachings. And many of the written fragments were in the highest degree interesting and suggestive; such as those which were successively published, under Mr. Green's authority, in the four volumes of *Literary Remains* and in the so-entitled *Confessions of an Inquiring Spirit*. But here was no system of philosophy, nor even the raw materials for a system. In that point of view Coleridge's written remains could have no value except in their relation to a general plan and in methodical correlation among themselves. Evidently if they were to be made conducive to a system of Coleridgean philosophy, it could but be in a very subordinate degree. The system itself must first exist in a logical form. And in order to its existence in that form, Mr. Green must himself thus produce it;—he, with his indefatigable industry, guided by an unique knowledge of Coleridge's conceptions and purposes.

This task Mr. Green had taken upon himself. Though at first I heard little of it as having so comprehensive a scope, later events satisfied me that from the first he had resolved to do as much as his remaining quantum of life

Work at
Hadley in
its relation
to the pre-
sent book.

* With reference to this and some other assertions in the text, I beg to refer to a paper which Mr. Green, in answer to some questions on the subject of Coleridge's Remains, published (June 10, 1854) in No. 241 of *Notes and Queries*. See also foot-note, p. xlii.

would allow towards putting forth the Coleridgian philosophy, in utmost elaboration, as a complete and coherent SYSTEM; and that, in purposing, if possible, to deliver as Coleridge's legacy to the world a SYSTEM of Coleridgian philosophy, he had accepted the words "system of philosophy" in their most exactive and obligatory sense. A system of philosophy (he always insisted) does not deserve its name, unless it virtually include the law and explanation of all being, conscious and unconscious, and of all correlativity and duty, and be applicable, directly or by deduction, to whatsoever the human mind can contemplate—sensuous or supersensuous—of experience, purpose, or imagination. In this spirit he set to work to systematise the Coleridgian doctrines; and in this spirit, subject to some necessary qualifications, he, for well-nigh thirty years, was at work with them. If he could not hope to establish the system in all the world-wide applications of which it claimed to be capable, at least, so far as his lifetime would allow, *that* should be the aim and tendency of his work; and he would for himself, before final publication, test the applicability of the system in the largest possible sphere of study. Theology, Ethics, Politics and Political History, Ethnology, Language, Æsthetics, Psychology, Physics and the Allied Sciences, Biology, Logic, Mathematics, Pathology,—all were thoughtfully studied by him in at least their basal principles and metaphysics, and most were elaborately written of as though for the divisions of some vast cyclopædic work.* Even on knowledges which could only be remotely conducive to his main end, he spent

* The "*Vital Dynamics*" and "*Mental Dynamics*" are illustrations of that sort of work, and this fact will account for the frequency with which Mr. Green refers to them in the following pages.

sometimes a good deal of labour. Thus, at an early period he thought it convenient to increase his familiarity with Greek ;—subsequently, when more than sixty years old, he busied himself with learning to read Hebrew ;—and at a still later period, with particular reference to philology, he sought at least some acquaintance with Sanskrit. Here-with, however, he kept himself well *au courant* of the common talk of his own time. In it he habitually sought opportunities for testing his philosophical principles. And it was characteristic of him that, with no view to publication, but simply for practice in the detailed uses of his philosophy, he would often very carefully think out, and sometimes discuss in writing, questions which were at the moment undergoing newspaper-criticism,—electoral reform, or capital punishment, or pleas of insanity in criminal cases, or the American schism, or some recent novel, or what not.

In such work as the above, especially when it is frequently interrupted by avocations of a different nature, years glide away like weeks. And as Mr Green continued, even till the end of his career, to hold himself to a considerable extent at the call of his profession, so, occasionally, there were long spells of time when he could make but little progress at home.

Lapse of
time.

Too soon, however, a period arrived when he felt that he might not prudently trust to a much longer continuance of life. As he neared seventy years of age (though with mind as vigorous as ever, and with eye still as cloudless as a child's) it became evident that his health was deeply undermined. From his father he had inherited gout. And of late that versatile disease, not as mere occasional foot-ache,

but in its most troublesome "irregular" forms, had been gradually sapping his strength, and giving him almost constant inconvenience and suffering. It was irremediable. So now, he calmly said to himself, he must wind up those affairs of his trust. Whether subsequently he might have opportunity to utilise further the long succession of philosophical treatises which he had prepared in apparent readiness for publication, he would leave for time to determine. But at least one thing should be made sure. He would at once complete in a compendious form a work which should give in system the doctrines, especially the theological and ethical doctrines, which he deemed most distinctively Coleridgian.* To this object he accordingly devoted what in effect proved to be the whole available remainder of his life. And the result is the two volumes now before the reader.

Religio
Laici.

It must not, however, be supposed that Mr. Green had left to the precarious end of his life a work which for thirty years he had deemed to be of supreme importance. On the contrary, his first act in the matter after Coleridge's death had been to compose (though necessarily in a form which he hoped by after-work to supersede as

* Coleridge's aspiration in the matter of religious teaching is expressed, in the form of an unfulfilled promise, in the following passage of his *Aids to Reflection*, 4th Edit. p. 111:—"The whole scheme of the Christian Faith, including all the articles of belief common to the Greek and Latin, the Roman and the Protestant Churches, with the threefold proof, that it is ideally, morally, and historically true, will be found exhibited and vindicated in a proportionally larger work, the principal labour of my life since manhood, and which might be entitled, *Assertion of Religion, as necessarily involving Revelation; and of Christianity, as the only Revelation of permanent and universal validity.*"

comparatively crude and fragmentary) a work of the same main intention as the present one,—an exposition of the religious doctrines which Coleridge would have most wished to see vindicated. This (so to speak) *provisional* compendium was entitled *Religio Laici*.^{*} It was only after having completed it, that he undertook the prolonged and various studies which I have described; partly with the view of developing as fully as he could the philosophical basis of the religious doctrine, and partly with that of rendering the same philosophical principles fruitful for other departments of human speculation and conduct. And the work now published—which, in the first heading of his manuscript, he termed “Argument of the Spiritual Philosophy, revised”—is, as it were, his re-cast of the *Religio Laici*,—a re-cast which is enriched (so far as consists with its scheme) by all the fruits of his subsequent studies, and represents as near an approach as the duration of his life permitted him to make to Coleridge’s and his own conception of a system of religious philosophy.

Coleridge’s position—that Christianity, rightly understood, is identical with the highest philosophy, and that, apart from all question of historical evidence, the essential doctrines of Christianity are necessary and eternal truths of Reason—truths which man, by the vouchsafed light of Nature, and without aid from documents or tradition, may always and anywhere discover for himself,—this, it seems to me, is the position which Mr. Green has always considered it his principal obligation to defend. In the unpublished *Religio Laici*, which represents his first action in fulfilment of Coleridge’s wishes, I find that he

Aim of the
present
book.

^{*} With it he wrote, as though for its introduction, a criticism, which still remains in manuscript, of Coleridge’s life and genius.

confined himself to the assertion and immediate defence of that Coleridgian view of Christianity. In the second stage of his labours, when he was giving to his undertaking the cyclopædic extension of which I have spoken, the *Religio Laici* seems to have been for the most part superseded by a very large theological section (of some six or seven hundred foolscap pages) entitled *Spiritual Being*. In the present work, the first volume is devoted to the general principles of philosophy ; but the second volume is entirely theological, and especially aims at vindicating *à priori* (on principles for which the first volume has contended) the essential doctrines of Christianity. With reference to his main object, Mr. Green would doubtless have considered his first volume as mere establishment of introductory philosophical positions ;—but the reader will of course observe that, while, in this sense, the second volume essentially rests upon the first, the first (as relating to general philosophy) may, for merely logical purposes, be deemed a work independent of the second. Had Mr. Green's life lasted long enough for a full execution of his enterprise, the larger work which he hoped to publish would have differed in its composition and proportions from the present one :—the *Prima Philosophia* would have been discussed and illustrated with infinitely greater amplitude ; and the application made of it to Christian Theology would have been but one (though, no doubt, still the most elaborate) of a series of deductive applications made of it in all the most important provinces of thought.

The book
in its con-
troversial
relations.

If Schlegel be right in his well-known dictum as to the division of the world between Platonists and Aristotelians, obviously one section of thinkers will dissent from the

fundamental principles on which the Spiritual Philosophy is made to rest. And even of those who accept as the sole right course the Platonic method of philosophising, there may be many who will more or less dissent from applications which have here been made of it. For this, Mr. Green was prepared ; but, had he lived, he would not, I am sure, have sought to anticipate the objections in detail. That I, on this occasion, should attempt from his notes to do for him any such thing, is, for various reasons, impossible. I will only venture, on his behalf, to claim for the Spiritual Philosophy that candid and patient consideration which at any time would be due to the fruits of life-long and conscientious labour in matters of highest human interest, and which particularly at present (more perhaps than at any previous moment in the theological life of this country) is due to such philosophical works as honestly purport to review the grounds of the national religious belief.

My duties in editing the work have been but of the humblest description. Such as the work came into my hands, such, with none but clerical alterations made, it now stands before the reader. Had Mr. Green lived to see it through the press, he would have inserted recapitulatory sections, one at the end of each division of the work, and one in general conclusion ;—but obviously these are not necessary to the book, and I have not deemed it within my competence to attempt any substitution of my own. Some less methodical repetitions of the text which the reader will notice (for instance, in the several references which are made to the doctrine of the Trinity) Mr. Green would probably have struck out in a

State in
which the
book was
left.

final revision of the work ; but, in the absence of the intended recapitulatory sections, I have thought it better to leave those repetitions as they stand. With regard to one section of the work—the fourth chapter of the third part, it will be observed that Mr. Green, instead of completing that section of his new manuscript, referred to two other papers from which the materials of the section were to be got. On consideration, and especially because the section is one of much theological interest, I have thought it best not to attempt the adaptations which he would have made, but rather to print *in extenso*, as appendices, the two papers to which his memorandum refers.

I am able confidently to say that Mr. Green regarded the book as, in every important respect, completed. In one of the last days of October, 1863, I spent an hour of chat with him before going abroad for my yearly vacation ; and he then, "telling me that the work was in effect *done*, offered me it to take with me for reading in travel. Little presaging that I was never again to see him—for he appeared to be in fully the average health of his later years, I told him that his papers must not incur chances of shipwreck, and that I hoped to read them with him on my return. From that day probably he never touched them. And a few weeks later, at Rome, I heard at once of his illness and his death. *Mihi, præter acerbitatem erepti, auget mœstitiam, quod adsidere valetudini, fovere deficientem, non contigit.** On the 1st of November, he had been taken with acute illness, to which he had very nearly succumbed at once. He had rallied, however, from the attack, and for some time afterwards had seemed to be slowly improving in health. Six weeks had passed,

* Taciti Agricola.

and hopes had been entertained that he would soon resume, at least in part, his former habits and occupations. But suddenly, on the evening of the 13th of December, he had been anew seized with acute suffering, which had almost directly terminated in death.

In concluding my account of Mr. Green's life, I must revert for a moment to the public portion of his career, in order to mention that from that source, during his last years, there had come to him some additional honours and labours.* In 1858, at the installation of Lord Derby as Chancellor of the University of Oxford, Mr. Green received the honorary title of D.C.L. in that University. Later in the same year, when the Medical Act brought into existence (for the educational and disciplinary government of the medical profession) a so-called *General Council of Medical Education and Registration*, the Royal College of Surgeons elected Mr. Green to serve as its representative on that Council. Two years later, when

Last stages
of public
life.

* For completeness, too, I may here mention some of the less important professional posts to which he had been appointed at earlier stages of his career. From 1819 to 1844 he was a member, and for the later years of this time, the President, of the Board of Examiners of the Royal Veterinary College. In 1841, he and Sir Benjamin Brodie were appointed (instead of Lord Arden and Sir Astley Cooper) to be of the Trustees of the Hunterian Museum; and this office he held till his death. In 1842-3 he was one of the Royal Commissioners appointed, under Sir Robert Peel's Government, to inquire into the state and management of the North-Leach and Gloucester prisons. In 1846 (in place of the Duke of Richmond) he was appointed one of the Commissioners for Government of the Pentonville Prison, but within a year or two resigned the office. And in 1851, on occasion of the first International Exhibition, he was Chairman and Reporter of the Jury on Surgical Instruments.

the post of President of the Council became vacant by the resignation of Sir Benjamin Brodie, who had first filled it, the Council unanimously elected Mr. Green to the office. In it he continued, with the warmest regard and confidence of his constituents, for the remaining three years of his life. And thus—so far as the medical profession of the United Kingdom may be said to have an integral existence,—so far (that is to say) as its internal organisation and discipline are concerned, Mr. Green, from the date of that appointment till the date of his death, was his profession's acknowledged head and representative.

Mr.
Green's
character.

In attempting to describe Mr. Green's character, I will not attempt to disguise that I write as with the affection of a son. And whatever may be my disqualifications for the task, I am not sure that this ought to be counted among them. For to love a good and great man is the natural result of having intimately known him. And if that result vitiates one's testimony concerning him, from whom is the better testimony to come? Yet, so to pourtray Mr. Green's character that strangers might have the same image of him as appeared to us who were most about him, would indeed require a greatly more skilful pen than mine. The men who are easily described are the men who have partial prominences of character; and commonly any such obvious traits are but signs that the main body of character is below its normal level. With Mr. Green there was nothing of this kind. Beyond any man I have known he had a proportioned, balanced nature,—one which was, perhaps as nearly as man's can be, *in seipso totus, teres atque rotundus*. But in different relations of life different quantities of the character were seen.

To persons who could not measure his intellect, and whose contact with him corresponded only to their need of his assistance, he would have seemed simply one of the kindest of men;—for he was full of pity and compassion for all kinds of weakness and suffering, and did not cultivate the convenient economy of helping only people who can help themselves. Again, to numbers of persons with whom he had frequent superficial intercourse—to persons, for instance, with whom he habitually travelled to and fro between London and Hadley, his seeming would chiefly have been that of the pleasantest of casual companions,—so good-humoured and sociable, so ready to chat on whatever might turn up for conversation, so informed of common things, so full of anecdote, so patient and kindly a listener, so various in his interests, so singularly unaffected and unassuming and unaggressive. Even for little children he had always friendly winning ways, and women he never failed to treat with a respectfulness which was peculiar and noble. His manners indeed were in a very marked degree those of a high-bred gentleman—eminently courteous and polite, and considerate for persons whom they concerned. His education had cast them somewhat in that statelier, more reserved and ceremonious, type, which belonged rather to the last generation than to the present one; and thus, with his life of strict study and meditation, he might easily have seemed cold or self-absorbed. But nature was too strong in him for this. His infinite geniality and kindness, his unaffected humility, his deep feeling of duty to others,—these shone out even in unfamiliar intercourse, and, especially in later years, gave an exquisite graciousness to his deportment. It seemed to me that persons who knew him best, and saw

In common life.

most of his strength of intellect, never lost that impression of his amenity,—that, rather, it continually grew on them. For the charm of it did not depend on any film of politeness, but represented, as I have said, the outcropping and surface-show of his true nature. And the more deeply that nature was stripped, the more clearly did one see that its substratum was an inexhaustible central source of humane and graceful conduct. Yet, while familiarity thus increased rather than diminished one's perception of what was genial in his character, not less certainly did every one who had to do with him in grave affairs find that he had commensurate moral and intellectual strength. But of that hereafter.

As a
speaker.

In Mr. Green's public manner a point of some prominence was his very rare skill of elocution—elocution, I mean, as distinct from eloquence. In youth he had made it part of his discipline for after-life to educate himself carefully in that respect, and had regularly practised under Thelwall. He started with great natural advantages for oratory, in his extremely tall and marked but manageable figure, and in voice and countenance which could lend themselves to any purpose of his speaking. Thus, when he appeared as an orator, the matter of his speech was always most effectively delivered. As he stood ready to begin—acknowledging and half deprecating the affectionate clamour of hands and voices that welcomed him, his aspect of noble benignity and wisdom was the ideal presence of a great teacher of men. And then for the hour or more during which he spoke, “drawing audience and attention still as night,” not a sentence was uttered but with the skilfullest elocutionary management,

never a syllable slurred, never a whisper lost, never a passage without rhythm, never a discord between sense and emphasis ;—so that, even in the longest and most involved sentences of argument, the logical process always appeared unambiguous, while, in sentences of passion and imagination, the emotional effect of the eloquence was heightened to the utmost by appropriate modulations of voice and action. To his audience there was much fascination in this mere outward of his public addresses. But I have doubted whether, to himself, that great elocutionary power was not in one respect disadvantageous,—whether, namely, it did not make him less sensible than he otherwise would have been of the possible obscurities of written language, and perhaps bias him somewhat unduly towards that oratorical style which has its type “when the skilful organist plies his grave and fancied descant in lofty fugues.” And I have an object in saying this here. For it may help the reader of the following work to an easier understanding of its difficult passages, if he will remember that Mr. Green oftener argued with his voice than with his pen, and that he writes as it were for an audience.

My knowledge of Mr. Green as a surgeon was of course almost exclusively in the career of hospital-practice, and this not till after the years when he took most interest in it. In 1833, when I became his apprentice, he naturally seemed to me, and I still believe him to have been, as perfect a master as could be found of the surgery which then was. In operating he was very skilful, very deliberate, and singularly imperturbable. Nothing ever seemed to take him by surprise, or to affect either his courage or

As a surgeon.

his temper. On the very rare occasions when he made a false step, he recovered himself with consummate coolness. It is a memorable fact that his almost matchless presence of mind under circumstances of danger and difficulty was not an original gift of nature, but was the fruit of gigantic diligence and self-control. Moreover, whenever he operated, everything had been well considered beforehand, and his faculties were on guard for whatsoever difficulty or accident or novelty the progress of his operation might let loose upon him. Thus, though many men could do easy operations more quickly than he chose to do them, very few men could equal the celerity with which he finished difficult operations. His lithotomy was, in my opinion, far superior to any I have seen, and, when I went to the hospital, there was a tradition that the first patient whom he had lost there after that operation was the fiftieth on whom he had publicly performed it. Judged by the standard of the present day (when chloroform allows a somewhat wider latitude to the practice of experimental operations) it may be said that his surgery was marked rather by caution than by enterprise;—but the result of that peculiarity was, that, of unsuccessful and useless operations, probably very few great surgeons can have had a smaller proportion than was his. Of his demeanour to the sick, it seems superfluous to say more than that it was characteristic of him:—it revealed the wise man, full of gentleness and commiseration, administering his art under the deepest sense, both of its dignity, and of his own brotherhood to the sufferers.

Of his
intellect
and intel-
lectual
habits.

Of Mr. Green's intellect in its relations to speculative philosophy, I do not here presume to speak. For in that

respect I can have no pretensions to forestall the judgment which the reader will form for himself,—having before him, in these volumes, the work to which Mr. Green undoubtedly devoted his utmost powers of philosophical thought.

It is only in other respects that I will venture to speak of his intellect. It was an intellect, naturally strong and swift and subtle, developed in all its faculties by incessant discipline and cultivation, enriched by extensive stores of knowledge and learning, and sure always to use common sense with a very uncommon sagacity. So far as it was exhibited in ordinary grave affairs of life, I may perhaps most nearly express my opinion of its quality, when I say that it seemed to me peculiarly such as is adapted for judicial work, and for some of the higher functions of legislation:—for though of course certain *moral* qualities have infinitely much to do with that aptitude of mind, its *intellectual* qualifications are also special. It was characteristic of Mr. Green (as it is, I suppose, of all first-class minds) that, in serious discussion, he was never to be found wasting talk or thought on the shell of the matter, never dwelling on its inessential circumstances and accidents of time and place and person, but always going right to the true gist and core and substance of his question. In this he showed such skill and discernment as I have scarcely ever seen equalled. With a few preliminary words he would set aside collectively all questions which he deemed irrelevant to the issue,—waiving them in such impartial language as not to provoke others to revert to them ;—and then, for measuring any right or wrong under discussion, he would put forward what he deemed to be the very standard of right ; or, for

measuring any expediency under discussion, he would put forward such considerations of ultimate aim as he deemed to be the true tests of the expediency. And so in common conversational criticism, whether the talk related to art or to science or to political or private conduct, always his mind saw the thing or act according to what he deemed to be its endeavour, tendency, spirit, and intention; and where these could be well justified, never was he to be found carping at the details of a short-come execution. Those who knew him could trace always as his undercurrent thought,—what, for this thing or action, is the very *idéa* of being? And no incongruity of circumstances would derange that habit of his mind. His imagination was not chained by them. *Dicit tanquam in Platonis πολιτεία, non tanquam in Romuli fœce, sententiam.**

* Cato as described by Cicero. I remember once to have seen Mr. Green's idealising habit illustrated under circumstances of quite comical incongruity. He was winding up his second Hunterian Oration in the theatre of the Royal College of Surgeons. His concluding argument (so far as I need here describe it) was that the medical sciences might be best taught in Universities, and (said he) in Universities identified with the *National Church*. No sooner had he uttered those last two words (and they seemed, though they were not, almost parenthetical) than the meeting showed signs of a sensation. "National Church!" and there!! Some thought of church-rates, others of pews-rents, others of surplices, others of Articles, others of Laud, others of Athanasius, and a feeble minority began to groan and hiss, and an overwhelming majority (though not all unperplexed) shouted applause, and for a moment discord seemed possible;—when the Orator, by one stately movement of head and hand, silenced the whole meeting so that a pin-fall could have been heard, repeated his words with an emphasis so resolute and yet so conciliative that not one murmur resented them, and then, in language which might have been Plato's, concluded his sentence and Oration,—“with the NATIONAL CHURCH. . . . as the universal organ “according to the Idea, for educating, harmonizing, and applying all those

The effectiveness of Mr. Green's intellectual powers depended in my opinion in a very great degree (as I must already have implied) on the noble moral qualities with which they were conjoined. That his was a mind in which no mean or impure thought could arise or for a moment linger,—that he was a man of absolutely spotless honour and integrity,—that his great mental powers were never used for selfish ends,—that in all kinds of co-operative action he was, in the highest possible degree, loyal and sincere,—that he was, in all finest senses of the word, liberal,—that he was of temper exquisitely stable and uniform, without moods and humours and caprice,—that he was consummately self-controlled and deliberate,—that especially he was cautious fully to measure beforehand the effect of words and acts, and scrupulous never to speak beyond his knowledge, or act beyond his intention,—that both in sympathies and in tolerance he was most large-hearted,—that he was firm, but with firmness would never cease to be gentle and moderate,—that his judgments of others were invariably indulgent, but that his moral appeal was always to broad impersonal principles of right and wrong, and that his own life was strictly guided by those principles,—all this was almost

Of his
moral
charac-
teristics.

“elements of moral cultivation and intellectual progress, of which Religion prescribes the aim and sanctifies the use.” Yet notwithstanding Mr. Green's idealising habits of mind, and even while his habitual meditations were as high as Milton's, or as abstruse and unpractical as Hegel's, no mere merchant or lawyer could take to commonest matters of business with greater apparent facility than was his; and it may serve as an additional illustration of his activity in common life, if I mention that for many of his latter years he was chairman of the Board of Directors of a first-class Life Assurance Company with which he had been long connected.

on the surface of his character, and could not escape any one's perception who had even moderate intimacy with him. Doubtless it was by the obvious, or in great part obvious, union of these qualities with his remarkable vigour of intellect, that he acquired his strong personal influence. And waiving any further mention of his public relations (to which I have sufficiently referred) I may say that in common affairs of life I have never known a man looked up to with fuller, with more entire, faith. It was not only that his opinions when he expressed them seldom failed to satisfy the judgment. Always also there was the feeling that the strength which he put forth was but a sample of that which was in reserve. And beyond this there was the confidence, such as scarcely any other man could inspire, in his absolute steadfastness,—the certainty that, where we left him to-day, there, to all moral intents and purposes, we should find him (life lasting) till the end of time :—

“ ——— To shame invulnerable ;

Like a great sea-mark, standing every flaw,

And saving those that eye him.”

Nor was it only by reverence that we were bound to him. There was the love for him which dwelt side by side with the faith. For all the movements of his mind were generous, and his nature was no less affectionate than strong. To his oldest age he was still young in the happiest instincts of youth—in frank and clean-hearted readiness to admire and enjoy, in sensibility to the claims of fellowship, in unsuspecting ungrudging trust, in enthusiasm for the heroic and beautiful. The only two or three occasions on which I remember to have heard him spoken of as angry, he was defending others against what he deemed to be mean attack. And surely in this place it is not

irrelevant to cite, as an illustration of his character, that filial, but not the less chivalric, loyalty, with which he was well content to spend his best powers in the completion of another man's work, and to merge all his own hopes of fame in the ambition of winning acceptance for his teacher.

To me, from the time when I first grew able to apprehend him, the sense of his wisdom and goodness and magnanimity was a sense which always went on increasing. With all his rare union of powers and virtues, with all his alternate readiness for meditation and for action, he seemed to me the almost ideal philosopher,—never pursuing philosophy at the expense of his common duties as citizen, but always so pursuing it as to gain from it more aptitude for those duties, and to adorn his hourly life with the very best fruits which it could afford. How great a happiness, how great a good it was, to have frequent familiar access to him, is what I need hardly say. From an outside world, troublous and sad with the million cares and wrangles of the battle of life,—from atmospheres redolent of mean thoughts—egotisms and jealousies and low ambitions and vanities,—that kindly presence, when one entered it, ah! it was *δῖος αἰθήρ*.* For, dominant there over all other impressions which it gave, was the

Influence
of philo-
sophy on
his life.

* Again and again, as I think of times when I have thus gone to him, there come to my memory those beautiful lines in which Lucretius tells of the influence of his master's teaching :—

“ Apparet Divum numen sedesque quietæ ;
Quas neque concutiunt venti, neque nubila nimbis
Adspargunt, neque nix acri concreta pruina
Cana cadens violat ; semperque innubilis æther
Integit, et large diffuso lumine ridet.”

Rer. Nat. iv. 18—22.

sense of lofty and luminous calm,—not the calm which corresponds to inertia, but the calm which tells of power and proportion. And in this calm, more than in aught else, the whole noble nature of the man was expressed.

His superiority to circumstances.

His circumstances may indeed seem to have favoured the development of that particular tone in his character; but I believe that under any circumstances it would have been the same. It was not a mere semblance of equanimity which he had,—nor even a mere superiority to petty cares and fussiness and irritability. He had that higher power which is equal to both extremes of fortune—that power of constancy and fortitude “which looks on tempests and is never shaken.” Of late years he was habitually subject to severe physical suffering, and often went about with his heart’s action so disordered that he must have doubted whether life would last him to get home again. Yet this abated nothing of his composure, nothing of his kindness, nothing of his attention to public affairs, nothing of his home-industry. And instead of voluntarily dwelling on it in his talk, he would, even when talk about it was necessary, pass to other matters as quickly as possible—pass, perhaps, with some joking allusion to the *οὐκ ἐφ’ ἡμῶν* of Epictetus. Surely, whatever may be on others the influence of his speculative teaching, at least in his own life, and to the inmost core of his being, he was a true and devout philosopher,—submitting himself with faith and humility to the general government of things, glad to forget his own momentary lot in the contemplation of eternal laws, and as incapable of murmuring against what he had to suffer as of remonstrating against tides and seasons.

To talk in much detail of his last scenes of life would be to violate the reserve in which every self-respectful man claims to hold his inmost domestic and religious relations. Only so far as I may, without infringing that principle, add to my illustrations of his character, I would show that not even the last sudden agony of death ruffled his serenity of mind, or rendered him unthoughtful of others. No terrors, no selfish regrets, no reproachful memories, were there. The few tender parting words which he had yet to speak, he spoke. And to the servants who had gathered grieving round him, he said—"While I have breath, let me thank you all for your kindness and attention to me." Next, to his doctor who quickly entered—his neighbour and old pupil, Mr. Carter,—he significantly, and pointing to the region of his heart, said—"congestion." After which, he in silence set his finger to his wrist, and visibly noted to himself the successive feeble pulses which were but just between him and death. Presently he said—"stopped." And this was the very end. It was as if even to die were an act of his own grand self-government. For at once, with the warning word still scarce beyond his lips, suddenly the stately head drooped aside, passive and defunct, for ever. And then, to the loving eyes that watched him, "his face was again all young and beautiful." The bodily heart, it is true, had become mere pulseless clay ;—broken was the pitcher at the fountain, broken at the cistern the wheel ;—but, for yet a moment amid the nightfall, the pure spiritual life could be discerned, moulding for the last time into conformity with itself the features which thenceforth were for the tomb.

How he
met
death.

JOHN SIMON.

SPIRITUAL PHILOSOPHY.

PART FIRST.

OF THE INTELLECTUAL FACULTIES AND PROCESSES
WHICH ARE CONCERNED IN THE INVESTIGATION
OF TRUTH.

SECTION I.

The Speculative Reason and its work.

§ 1. THE aim and object of all Philosophy is to attain to the insight of *First Principles* or *Ideas*—yea, to the insight of the Absolute First Principle, from which whatever is must be derived, and in which whatever is must have the intelligible ground of its Being.

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§ 2. There exists in man, as the essential characteristic of his Humanity, a power or faculty of Intelligence, best named the *Reason*, which discloses to him the need, and enables him to fulfil the inherent desire, of contemplating his manifold knowledges in their *absolute integrity*.

§ 3. The contemplation of such absolute integrity will have been obtained by the conscious possession and insight of an *Idea*:—that is, of a *causative Principle*, containing, predeter-

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mining, and producing its actual results in all their manifold relations in reference to a final purpose; and realized in a whole of parts, in which the Idea, as the constitutive energy, is evolved and set forth in its unity, totality, finality, permanent efficiency and integrity of Being.

§ 4. The requisite insight of such causative principles is derived from the idea of *the Will* as revealed in human self-consciousness. Will is contemplated universally as the inseparable union and perpetual distinction of Intelligence and Originative Power, and as the sole and sufficing ground of the intelligibility of all causative powers.

§ 5. The distinction, in the Will, of Intelligence and Causative Power implies also the distinction of the *Speculative* and *Practical Reason*. The *Speculative Reason* is *Intelligence considered abstractedly from the agency of the Will*, with which in truth it ever constitutes an indivisible living totality;—it is the Light, *lumen siccum*, the pure intelligence or intellect, considered apart from the total life, of which it is an integral constituent. The *Practical Reason*, on the other hand, is the *Intelligence*, which *in union with power* is necessary to inform the Will and to direct and guide its operance in the light of a definite aim and purpose. In other words it is the enlightened Will; and so Reason is the constituent without which Will

is inconceivable as the causative of reality in the integrity of Being. It might be said that Life is the perpetual process of the realization of the Will in and by the light of Reason, and that Reason is the light of the life. Ex. gr., it is the Reason which enlightens the human Will to become a *Conscience*, and thereby confers on the individual man the power of realizing, or of striving to realize, the Idea of his spiritual Integrity, that is, his Humanity.

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§ 6. The *Reason*, considered as pure intelligence or as the *Speculative Intellect*, is the appropriate *organ of Philosophy*, and therein the faculty of beholding and of attaining to the insight of Ideas, or first principles, as *Truths of Reason*, which, transcending the scope of the empirical faculty, appertain to the contemplation of the integrity and integration of Spiritual Being. The Reason imposes on the mind of man the necessity, and aids him in securing the mental possession of those Ideas, by which unity, totality, finality, permanent efficiency and integrity are supplied to all his knowledges. It reveals itself by its own light, and confers on the human mind the power of apprehending such Truths or Ideas as Verities that are at once subjective Truths and objective Realities, and of beholding them in their full perfection and complete integrity. By means of Reason, and by it alone, the human mind may become a conscious mirror, in which is

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imaged an epitome of the universe, physical and moral, as the work of God,—yea, in which is revealed the spiritual image of the Divine Author himself. The Speculative Reason is then that to which we appeal as the standard by which we are to measure all things, as that which is to give light and intelligibility to all things, and finally as the fundamental principle of a *Spiritual Philosophy*, that is of a *System of Realism*, in which “Will” is contemplated as the causative ground of all reality.

SECTION II.

The Understanding, or Discourse of Reason.

§ 7. In order to complete the positions on which a Spiritual Philosophy is founded, it is necessary to distinguish from the Speculative Reason that form of Intelligence which may most conveniently be designated the *Understanding*. It is the *faculty* of *Experience*, sensible and psychical. Its office is to generalize whatever specific impressions may have been consciously received, by including them under *generic conceptions* and by naming them in *generic terms*.

Further, as the function of the Understanding, or Empirical Faculty, is to bring all impressions derived from facts and phenomena under the *conditions of Reason*—to raise the empirical into the rational, the subjective and particular

into objective and universal Truth,—so the Reason (and here the Speculative Reason) supplies the universal and necessary *Forms of Con-
cipiency*, otherwise known as the Categories or Moulds of the Understanding, namely:—1. *Cause and Effect*;—2. *Subject and Attribute*, sometimes called Substance and Accident;—and 3. *The Whole and its Parts*.

§ 8. In establishing the distinction between the Reason and the Understanding, it may be borne in mind that *Truths of Reason* vindicate their distinctive stamp and character by the fact, hereafter to be proved, that they are immediate, intuitive, à priori, certain, necessary, universal, immutable, absolute,—that they contain their own evidence, or are revealed by their own light,—and that they are demonstrable, apodictic and self-authoritative, by reason of their *evidentness*.

On the other hand, *Truths of the Under-
standing*, as contradistinguished from truths of Reason, must be authenticated by facts of sensible or psychical experience, are only to be inferred from empirical data, and require logical proof conducted according to the rules of *mediate reasoning* supplied by the *Canon of formal Logic*.

§ 9. That the “*Conditions*” designated in § 7 as *Forms of Con-
cipiency*, under which Truths of the Understanding may become Truths of Reason, are essentially of the nature of, and derived

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from the Reason, will be admitted,—if Reason be (as the postulate requires) the power of beholding any whole of Being, particular or universal, with all its diverse parts and manifold relations, in the unity of the Principle which at once produces and sustains the totality in its integrity,—and if (as will be shown hereafter) Reason cannot contemplate such totality in its integrity, except under the “conditions” above specified. They are the indispensable exponents of the realization of a causative Principle which, considered as predetermining its actual results, involves necessarily as its factors Causality, Self-substantiation, the Manifestation of the same substance in all the relative realities which constitute its sphere of Being, and the Totality of all as a Whole animated by the One pervading and Conservative Principle which gave it birth and being. It will be found that these unimpeachable positions are *Truths of Reason* and *Axioms of Rational Integration*;—truths and axioms which are immediately seen and consciously recognised in the primary Principle, from which they are derived and of which they are essential constituents;—indispensable exponents of the *Idea of Rational or Spiritual Integration*, which à priori (that is, originally and inherently by virtue of the light of Reason) is operative, and even instinctively and unconsciously operative, in the human mind, and is discovered in and by spiritual *intuition*

under reflection of the individual on the facts of his consciousness.

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§ 10. That the universal forms of Concipiency, or so called Categories, are the indispensable aids to the acquirement of Experience, or of scientific Knowledge founded on faith in an inviolable order of nature, will appear more fully in the following §§ relating thereto:—

§ 11. *Cause and Effect.* Whatever requires a satisfactory explanation of its production, its occurrence or recurrence,—that is, whatever is or begins to be, or has existence, and in that existence undergoes change, requires for its explanation the assignment of an *antecedent Condition* which under the name of “Cause” is adequate to account for, or render intelligible, the product, consequent, or “Effect.” And the only adequate conception of such “antecedent condition” is that of a Power, Efficient or Agent, which works and in working is the exponent of the process under consideration, and without which the relation of *dependency* between antecedent and consequent could have no meaning.

It is true that the conception of “Power,” as antecedent condition in the order of thought, is derived not from sensible experience, whose limits of cognition it transcends, but from the self-consciousness of Will. But, without admitting Causative Power to be the “antecedent condition” of all production, the facts and phe-

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nomena of sensible experience would forfeit all claim to the *real* connexion supplied, or intended to be supplied by the alleged relation of Cause and Effect. Without the assignment of a Principle, upon whose operance any whole of phenomenal facts, simultaneous or successive, may be shown to *depend* for their occurrence and recurrence our knowledge could be neither certain nor predictive. And their combination depending only upon the mental association of the observer, they would be left as unexplained and inexplicable data, or as *causata non causata*; namely, by substituting subjective association for causal, i.e. objective, connexion. In other words, the attempt to solve the problem would defeat its own purpose.

Corollary. The human mind recognises a *Law*, wherever it attributes Unity to a manifold of facts and phenomena, contemplates the relation of each and all as necessary, regular, and invariable, and is thereby rendered capable of anticipating and predicting a constant order of succession or of simultaneous co-operation in their recurrence. But, in the recognition of a Law so defined, it is impossible for the human mind to refuse its assent to the position that such Law must have been already fixed and predetermined,—and, if predetermined, must have existed in the causative and operant Power, or antecedent condition of Efficiency, by which the results are obtained;—a Power, which

having originated, preconstituted, and predetermined the relations of existential Being, enforces the obedience necessary to maintain their constant order and regularity. In fine, the originant Power is what is properly called "Cause;" and the predetermined form of its agency is named "Law." A glorious instance of the establishment of a law, answering to this definition, we owe to our immortal countryman Newton.*

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§ 12. *Substance and Accident*, or Subject and Attributes. In thinking, or forming a conception, of an object of sensible or psychical experience, a distinction is necessarily made between its attributes, properties, qualities or accidents, and the "Substance" in which they inhere; and, although some are more permanent than others and all may be more or less changeable, the Thing itself must be considered to be essentially the same. The distinction is unavoidable between permanent "Substance" and changing "Accidents," between an *Idem* which constitutes the identity of a Thing amid the changing and exponential *Alter* of its sensible manifestations. Without this concipieny of Substance and Accident, without this assumption of *Idem et Alter*, in all existential Being, without this attributing a somewhat which is permanent and abiding amid all change in the outward facts and phe-

* Comp. *Vital Dynamics*, p. 16, on the law of Gravitation.

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nomena of existence, the *Subject* could not be identified as that which gives unity and objective reality to our experience of the phases of existence, and the phenomenal exponents would be dissolved into mere unconnected particulars of sense. What is the real nature of "Substance," will be explained under the head of Self-consciousness, though it may be here stated that its true significancy is that of Will or Spirit: but it is evident that the concipieny, which it represents, is an indispensable aid to Experience. Thus it is of the very condition of scientific knowledge to recognise Iron as the same "substance" under the variously modified forms of Oxides, Rust, Plumbago, Cast Iron, and Steel. But whatever may be the true philosophical justification of the Concipieny in question, the fact taken on trust by the empirical mind remains the same:—He who distinguishes a Metal by its properties of weight, brilliancy, lustre, colour, ductility and the like, or who by difference of such properties distinguishes Gold from Iron, or who has noted with its bare branches the Tree which puts forth its rich green foliage under the vernal sun,—he cannot but apprehend the necessity of the distinction between the permanent substance of a thing and its changing accidents.

Corollary 1. But the concipieny or category, above described, is the ground of another and important element of empirical knowledge

when applied to scientific purposes. The term "Substance" may be used not merely in the sense of an assumed or unknown supporter of phenomena, but may be employed as significant of actual Being. That is, "Substance" may be considered as realized in a specific and characteristic form of Being, which may be fitly called a *Type*, and may be regarded as that which gives an unity by likeness to many objects notwithstanding subordinate differences of each. The Empiricist can neither deny nor reject such specific and characteristic form of Being, when it constitutes a Type or Pattern,* by means of which he is rendered capable of connecting and uniting in his thoughts whatever may be assimilated in his conscious experience as modifications of one and the same common type of being. All generalization and classification for scientific purposes imply the recognition of *Likeness* with *Difference*; and the empirical faculty would be powerless without adopting the conception of a permanent *Type*, of the *Modifications* of which Experience takes cognizance in the forms of actual existence. This subject will meet us again under the heads of Generalization and Classification: but it is plain that no naturalist could claim the title who failed to recognise the same organic Type in all the modifications of which the Fera or predaceous animal is the model, whether it be

* Darwin on Selection of Species.

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exhibited in the Lion, Tiger, Dog, Cat, or other variations.

Corollary 2. The Concipiency or Category of Substance and Accident would be justly deemed incomplete without adverting to the Sub-categories of *Quality and Quantity*.

A. *Quality*. It will be observed that Accidents and Qualities may be taken to mean nearly the same, since they furnish the marks by which we acquire or certify our knowledge of the being of our so-called "Substances" or self-subsistents, and which we predicate of, or attribute to, these. By "Quality" we mean any sort or kind of impression which any object is calculated to produce, or any specific and constant mode of operance by which any object, agent or agency, may or does affect a percipient. When we assign to the object or agent that by which the percipient is affected, we regard the object or agent as a *Subject*, and call the cause of the impression on the percipient an *Attribute* of the subject contemplated as agent. And it will be remembered that here we are not speaking of what the realities are in the nature of things, but of what our *Thoughts* of such things and their qualities are,—that here we are, and necessarily are, treating our subject-matter from a *subjective* point of view.

B. The other sub-category of *Quantity* is a subject far too large to be here discussed, if we are to comprehend in it the consideration of

the whole of mathematical science and its philosophy: but a brief account of its main characteristics may not be omitted. "Quantity" has been defined as that attribute of objects or things under which they may be conceived as subject to increase or diminution. But we distinguish two kinds of quantity, namely, the Continuous and the Discrete. A *continuous quantity* or magnitude is primarily the limitation or bounding of Space, determining a certain amount of extent, and secondarily the quantity of space occupied by any solid body, or the extent of any phenomenon in space. But when we have to measure a space thus bounded, or to count spaces, we begin to number, and require the aid of *Discrete Quantities* or *Numbers*.

Passing over the distinctions which belong to Dimension and Mensuration, it will be noticed that by Discrete Quantities we mean the numbering of the separate or dividuous as we find it expressed by the ordinary *Numerals*;—and in this numbering we are under the necessity of considering the things numbered as the same in kind. And thus, as in the process of Generalization, by noting the Like in the Different, we represent the manifold of Experience in Classes of dissimilar objects,—so, in the process of Numeration, we arrange objects of the same sort or kind as classes of similar objects. Hence, in respect of the logical

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use of Numeration, we class *dissimilar* objects by that which they have in common, or the like; and we class *similar* objects, by that which constitutes their only difference, namely *Numbers*.

In all numeration we ought to contradistinguish the *Unity*, and the *Units* which make up, or are contained in, the Unity. In counting the strokes of a clock we do not simply mark the repetitions or units of beat; but we count till the number of the repeated strokes has made up the unity, which we have been expecting or wishing to ascertain. Two, Three, Four, are as much unities as One, and indicate the second, third, or fourth hour. All systems of Arithmetic exhibit this principle, and although ours is a Decimal System, yet we find a Binary and a Duodecimal System; and similar indications of recognised Unities in the Groat or four considered as Unity, in the Pair, the Triad, the Leash, the Dozen, the Score and the like.

If we inquire into the *origin* and *nature* of *Numbers* it may be shown that the ultimate ground and foundation is the idea of Unity and Distinction, and therefore essentially derived from the Reason. But, secondly, if we investigate the conditions under which the Idea becomes realized in and by the human mind, we shall find that the fundamental element of Number is to be sought in the *sense of Time* as the inseparable associate of all our mental

processes; but that this sense of time would be a mere continuous flux, if without distinction of Parts or Moments; and that the Distinctive, consisting in part of repeated acts of attention, is completed by any regular recurrence of a stronger act of attention however induced.

Apply this in any case in which you have the opportunity of marking, or are induced to mark by the state of the attention, a succession of beats, in which there is a regular recurrence of a strong beat followed by a certain number of lighter beats or strokes,—you will have then what is called *Rhythm*, or a Thesis and Arsis, which corresponds to a succession of heightened or lowered acts of Attention, and furnishes us with the units and unities which we call *Numerals*.

Finally, in considering the nature of arithmetical operations, in which there is a constant comparison of the Ratios and Proportions of Numbers, it will become more and more evident that all *numbers*, or the numerals as their representatives, are in effect and significance an exhaustive *scheme of Ratios*.

§ 13. *Whole and Parts*. We cannot form an intelligible conception of any *whole* in the physical or moral world, except as an *Unity of interdependent Parts*. It must be reserved for future explanation to show what is the origin and true foundation of this Conciency; but after what has been already said the Reader

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will anticipate that it is derived from the facts of Self-consciousness, which exhibit the realization of a Will. The Empiricist no doubt will repudiate such explanation when offered; nevertheless he must accept the category as a needful form of thinking and as an indispensable mould of his thoughts in acquiring his experience, although it must remain for him an unexplained *datum*. Observe however that empiricism leads to an inadequate view of this concipieny, and is prone to believe that a Whole is merely that which is equal to the sum of the parts; but this view, besides being erroneous in itself, is not even a necessary part of the empirical use of the category. Say that (as in the palæontological researches of a Cuvier) it were important to reconstruct the structure of a total animal out of a few fossil remains, it might be of some predaceous animal:—here even the Empiricist, in order to the work required of the scientific imagination, could not but consult *the Type* of animals to which similar parts are found to belong, and could not but infer, for instance, that laniary teeth and curved claws are evidences of their having belonged to a predaceous quadruped. But it cannot be doubted that he would thus call to his aid, in constructing mentally the total creature, somewhat other and more than *a sum of parts*. He might have learnt from sensible experience what the parts are which make up the sum

or visible whole of such a creature. But even the logical process implies and requires that he should found his inference upon a *generic conception* which, although derived from experience, may be used as a Type for determining the unity of the visible components. And this unity is not a mere sum total or aggregate of the parts, but includes the superadded insight of the *interdependency* of the constituents, as reciprocally needing and implying each other, and of their conspiracy to the accomplishment of the one constructive aim which the organic whole presents. Hence then this Category may be fitly described as requiring for empirical knowledge that every Whole in the physical or moral world shall be regarded as an Unity of interdependent Parts, and as such by virtue of a generic Conception, or Type, which in providing the Unity in one dominant and comprehensive Thought, determines the relations of the Parts, as specific and integral constituents of the conceptual whole;—that is, the one dominant conception, which gives intelligibility to the Whole, reappears in each and all as the specific opposed to the generic.

Without the category of Whole and Parts, i.e. without the correlation and opposition of Whole and Parts, in respect of logical Wholes as corresponding to real Wholes, no unity of Being or Existence in the manifold could be apprehended, and no distribution or classification of particulars

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could be accomplished. Thus, in respect of the distinctions here insisted upon, we discern in every *organic Body* the parts or members of which it is composed; and in like manner in every art-construction, as a Ship, a Windmill, a Steam-engine, we are under the necessity of investigating the relations of the parts to each other, and to a Whole in which every "part" derives its significance from the Whole of which it is a component. A mere knowledge of *Particulars* without the *Unity*, upon which their intelligibility and meaning depend, could have no claim to intellectual insight of any kind. Thus again by the same indispensable aid we are enabled to *classify* and *distribute* the objects of empirical knowledge under the exhaustive heads of *Genera* and *Species*, or other convenient divisions; as witnessed in the classificatory Sciences, such as Botany, Zoology, Mineralogy and the like.

In adopting the above it is necessary however to bear in mind the distinction made by logical writers of *Logical and Physical Division*, explained hereafter in § 33.

SECTION II. (*continued.*)

Subsection A. *The Sense and Senses.*

§ 14. In the foregoing §§ on the Discourse of Reason, the Concipiences of the Understanding have been discussed as necessary conditions of Experience. And we have next to point out

whence and how the materials are acquired, which, cast in the moulds of the Understanding, are elaborated into empirical knowledge.

These mental materials, which are to be wrought into Thoughts, may be described as *Impressions* which adequately excite the conscious Attention. They are of two kinds, viz. :—

1. Those which affect the *Inner Sense*, such as Emotions, Feelings, Volitions, or any psychical change of state :—
2. Those which affect the *Outer Sense* and consist in the affections of the several Senses. When such impressions are referred only to the state of the subject they are called *Sensations*. When such impressions are referred to outward objects or agents supposed to produce the impressions, they are called *Perceptions* :—that, under the appropriate conditions, they are unavoidably so referred, and are affirmed to be *ab extrâ*, depends mainly upon the conviction that the subject affected by them has no power to produce, change, or control them by any act of his volition ;—and hence his unutterable assurance of the existence of an outward world.

§ 15. But the Sense, both inner and outer, is exercised only under the inherent “conditions,” which are designated as *Space* and *Time*. It would be hopeless to attempt, in this summary of the arguments upon which a spiritual philosophy is founded, to enter upon an analysis of the questions connected with these forms of Sense ; and I must, instead of quoting at length my

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papers on the subject, content myself with offering the following results of my investigation:—

Space and *Time* are not mere products of empirical Knowledge. They may be regarded as forms of sensuous intuition. But, as containing grounds of universal and necessary truths (viz. those of Mathematical Science) these forms of Sense may be best, or most philosophically, resolved into *Laws of Sensible Distinction*. *Space* is the form of universal Objectivity: *Time* is the form of universal Subjectivity:—both are inherent forms of realization and of reality in a world requiring sensible distinctions. And the laws of sensible distinction are to be finally traced up to the Sciential Reason, as the ground and source of all Unity and Distinction when contemplated as the revelation of the Divine Intelligence and Wisdom.

SECTION II. (*continued.*)

Subsection B. *Generalization.*

§ 16. Pursuing the course indicated in § 14, namely the explanation of the process required by philosophy in raising the notices of the Sense, inner and outer, into *Thoughts*, considered as Generic Conceptions substantiated by means of Words,—we are, in truth, introducing the Reader into the science of formal *Logic*:—but, in order to avoid the complexities of so large an inquiry, it will be our duty to select such

parts only as a lucid account of the Reasoning employed in the Spiritual Philosophy may need and require.

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The work of the Understanding, as the empirical faculty, § 7, may be described as Generalization in conformity with the Rules of formal Logic; and by *Generalization* is meant the mental *process of bringing the notices of the sense*, or the facts and phenomena by which we have been consciously impressed, severally *under their appropriate Kinds* or “*Genera*,” each Genus being distinguished by a Name or descriptive designation.

§ 17. But the process of Generalization implies a correspondent process of Abstraction. “Abstraction designates the process by which in contemplating any object our thoughts are directed to some one part or property exclusively, withdrawing our attention from the rest. Generalization indicates the process by which the mind occupies itself with like parts or properties in dissimilar objects, and in consequence of the likeness includes them in one genus or kind.” By noticing the Different in the Like, and the Like in the Different, these elementary factors of thought, *Abstraction* and *Generalization*, are the indispensable aids to the naming, sorting and classing of all the materials of which sensible and conscious experience are composed. The propensity to look for resemblances amid differences in the multitudinous objects and

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agencies by which we are influenced may be regarded as one of the earliest and most universal characteristics of the human mind.

§ 18. But, although these processes are the indispensable conditions under which the facts and phenomena, from which conscious experience is derived, are raised into human thoughts and conceptions, a distinction should be made between what may be called *Associative Thoughts* and *Logical Thoughts* or *Conceptions*. An associative thought is one which recalls a resemblance: a logical thought or conception is one which requires a definition, or such a description as would justify generic inclusion. A seaman, who had been a voyage to the Arctic seas, might give a sufficiently intelligible description to his townsmen of a Whale, which they had never seen, by its resemblance to objects with which they might be familiar; but in order to convey an accurate conception of the logical kind or genus, he would be obliged to distinguish it at least as an inhabitant of the deep which breathes by lungs and suckles its young.

§ 19. The primary form then, as pointed out above, in which the Generalization of Experience meets us, and this in its logical acceptance, is that in which the mind occupies itself with like parts or properties in dissimilar objects, and in consequence of the likeness includes them in one genus or kind. Say that the herdsman in the rudest state of society distinguishes his cloven-

footed flock of sheep and goats from the wild animals armed with sharp pointed teeth and curved claws, which seize tear and devour those of which he is the guardian. If he has thus distinguished them he has already the means of making the serviceable generalizations, which include his herd and other grazing animals under the generic conception "cloven-footed," and their enemies, who prey upon them, under the genus or kind "with laniary teeth and curved claws."

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Thus, when we think of objects by means of their like character, that is, of what is common to many in the impression produced upon us, we say that we think of them by means of a *common or generic conception*. But this generic thought, by which we include many and different objects in one conception, would be evanescent and indeterminate, unless we had the power of limiting and fixing it; and this we do by the contrivance of *Language*. Every generic conception may be designated by an appropriate *Term*, which includes and is significant of all the objects to which the term is applicable in its generic sense. "When a person speaking to us of any particular object or appearance refers it by means of some common character to a known class, which he does in giving it a *name*, we say that we *understand* him, i.e. we understand his words." (Aids to Reflection, p. 222.)

§ 20. *Propositions*. The logical acts already noticed are *Abstraction* and *Generalization*; and

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it will be readily inferred that they imply *Comparison*, or the act by which the objects under consideration are brought into mental juxtaposition, in order to note in what they agree or disagree in respect of a proposed common or generic mark. And to these we may add *Reflection* or the act of turning inward, and of weighing how far the impressions produced by the objects fit them, or do not fit them, to be combined to one Conception in the unity of conscious Thought. But, lastly, an act of *Judgement* is required by which we decide that a generic mark, otherwise called a *Predicate*, does, or does not, apply throughout to the genus, sort or kind, which it is intended to designate. And thus we form *Conceptions*,—that is, comprehend in an unity of thought a multitude of impressions, psychological or sensible; and thus we are enabled to collect and register the results of our experience.

It is then an act of Judgement, when we affirm or deny that any object or appearance is included in any generic conception or designation. Now the expression of such an act of logical Judgement in Terms is called a *Proposition*; and that of which the generic Term is affirmed or denied is called the *Subject* of the proposition, whilst the generic term affirmed or denied is named the *Predicate*;—the Terms or Exponents of the proposition being connected by the verb substantive “is” and this connexion is called

the *Copula*. Thus we say:—"Grass is green," "Assassins are cowardly," "Whales are not Fish."

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We are not, however, to suppose, as might be perhaps expected, that the subject of a proposition is always its substantive part, and that the predicate is that which (as an adjective) designates its property or attribute. See, respecting terms, § 22.

§ 21. Not an unimportant question, connected with the nature of a Judgement as expressed in a Proposition, is that of the nature of the *relation between Subject and Predicate*. It involves indeed the larger question of the significance of the scope and aim of Logic itself, considered as the science of reasoning.

The question may be in a considerable measure ventilated by attending to the meaning of the word "is," which, as we have seen, is the copula between subject and predicate. And we learn that it may be used in several senses. Thus it may mean simply "is *like*,"—e.g., "a whale is (sc. like) a fish:"—or it may stand for "is *designated by the term*,"—e.g., "the appropriation of what belongs to another man is (sc. designated by the term) Theft:"—or it may be equivalent to "is *recognised by the property*,"—e.g., "vinegar is (sc. recognised by the property) of acid taste:"—or its meaning may be "is *described as*,"—e.g., "a bird is (sc. described as) that which has aptitude for flight:"—or its

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power may be “is *defined as*,”—e.g., “man is (sc. defined as) a rational Being:”—or, according to some logicians, it answers to “*agreement*,” that is, expresses that the subject agrees with the predicate or vice versâ,—e.g., “the temperature of 100° F. is (sc. agrees with the description) hot:”—or again, the explanation of the word “is” may be “is *equivalent or equal to*,”—e.g., “an excuse is (sc. equivalent to) an admission or confession of the fault charged:—or lastly, the value of the “is” may be “is *included or contained in*,”—e.g., “the Tiger is (sc. included in the generic term) predaceous.” But if we examine each of these several meanings, it will be found that in each the expression used may be changed to the affirmation that the Subject of the proposition is included in or contained under the Predicate as the inclusive generic designation. When we say that Aristotle was a Logician, that an appropriator of other men’s property is a Thief, that a bird is a flying animal, and the like, we mean in each case that the predicate is applicable to, designates as a generic term, and contains under it the subject specified. It is not necessary that we should regard the subject as one of many species, all of which make a generic whole of which the predicate is the name. We merely mean to say that the subject is one, perhaps of otherwise very different sorts, which is contained under and may be designated by the

Predicate, as the means of marking the subject by a right attribute, without special reference to the class in which it may be contained. I conceive then the fundamental position to be, that a Proposition affirms or denies that the subject is *contained under*, or *included by*, the Term which stands for the Predicate, and that the use and value of the Copula are truly significant of this logical relation. But it may be properly alleged that in *the use* of the proposition to express the relation of Subject and Predicate, we may distinguish *Attribution* and *Inclusion*:—in the former, attention is only directed to the application of a right attribute or designation of the subject; in the latter the attention is directed to the variety and number of the species included in the genus designated by the predicate,—e.g., “all animals that chew the cud, such as the ox, the goat, the sheep, the deer, are included in the genus Ruminant.”

§ 22. There are some other considerations with respect to *Propositions*, which, though requiring only a brief notice here, may not be altogether passed over.

1. Propositions differ in *Quality and Quantity*. In respect of quality they are *affirmative* or *negative*. In respect of quantity or extent they are said to be *Universal* or *Particular*. A universal proposition is one of which the predicate is affirmed or denied of the whole of the subject. Its usual signs are “all,” “every,” “none,” &c.

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A particular proposition is one of which the predicate is affirmed or denied of only part of the subject :—its usual signs are “some,” “many,” “few,” “several ;” and “all” or “every,” if the copula be negative. To these may be added the *Singular Proposition*, or one of which the subject is an individual : but as singular propositions predicate of the *whole* of the subject, they fall under the rules which govern universals.

2. Propositions are said to be either *Categorical* or *Hypothetical*. A categorical proposition declares a thing (*κατηγορεῖ*) absolutely, “I am,” “Judas was a traitor.” But there may be, besides the *pure* categorical, *modal* *categoricals*, namely those which assert the mode or *manner*, of the agreement and disagreement between subject and predicate : and the “modes” usually distinguished are *Necessary*, *Possible*, and *Contingent*. Thus, as Watts’ *Logic*, p. 161, says : “It is necessary that a Globe should be round : That a globe be made of Wood or Glass is an unnecessary or contingent thing : It is impossible that a Globe should be square : It is possible that a Globe may be made of water.” The *Hypothetical Proposition* is subdivided (?) into Conditional and Disjunctive. A *conditional hypothetical* proposition consists of two or more *categoricals* united by a conjunction called the Copula. It asserts, not absolutely, but under an hypothesis or condition. Such propositions are denoted by the conjunctions used in stating them ;—e.g., “if

man is fallible, he is imperfect." A *disjunctive hypothetical* is denoted by the disjunctive conjunction "either";—e.g., "it is either day or night." Comp. Wesley, Logic, p. 6.

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3. *Terms.* The terms of a proposition are the Subject and Predicate; they are the words which limit and express the meaning of the proposition. It is not necessary that the distinctions, which logicians have made in the use of terms, should be here explained: but it is to be remembered that the Subject of a proposition is not always its substantive part; nor does the Predicate (as an adjective) always designate some property or attribute. These terms, Subject and Predicate, have merely a logical meaning and relative use in respect of each other. If we say "Green is a colour," the property expressed by the adjective "green" is used as the Subject, and the substantive "colour" as the Predicate of the proposition; and we affirm thereby that "green" is included or classed under the conception "colour."

But the example we have chosen leads to another distinction in Terms of no mean importance:—we are using the term "colour" *abstractedly* from all the qualities or properties which constitute its sensible and real character. It is substantiated for our mind, as that which is always present when we receive the impression of any specific colour, but which may be considered abstractly and for itself in the absence of

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every specific colour. It is not so when we use a term, which expresses any objective reality, say a "house," a "tree," a "man;"—these are so named, or derive a name in consequence of their having produced a *total impression* on the senses, each of which comprehends various properties contained in that total impression, or suggested by it. Hence the distinction between *Abstract* and *Concrete Terms*. The first are those to which there is no corresponding sensible object, but only a mental substantiation and an abstract from the similar sensible impression which the generic term includes and suggests;—such are the terms Virtue, Wisdom, Courage, Humanity and the like. On the other hand, Concrete Terms correspond to the total impressions of actual objects within the sphere of our sensible Experience, and include or suggest various dissimilar properties, under each of which the subject may be classed.

4. *Definition*. It will be easily seen then how important is a right use of Terms or Words in any act or process of Judgement, in order that we ourselves know, and express to others our meaning correctly, definitely and unequivocally. In order to attain to a right use of Terms, the meaning of every proposition requires to be accurately weighed in respect of the relation between the Subject and Predicate:—namely, that what is predicated of the subject is objective, true and correctly expressed. The most complete attain-

ment of this object is that by means of a so-called *Definition*; and this will be appreciated if we take Kant's account of the requisites of a successful definition, viz:—“*Conceptus rei adæquatus in minimis terminis completè determinatus.*” (The adequate conception of a thing fully determined in the fewest terms.) Logicians say, and I quote the following from Wesley's Logic (see Index and Vocabulary): “Definition is such an explanation of a term as separates it like a boundary from every thing else.” It is divided into:—1. *Nominal*, which explains only the meaning of the term by an equivalent expression, that may happen to be better known, as Decalogue is (equivalent to) the ten commandments: 2. *Real*, which explains the nature of the Thing. (For further particulars see the passage referred to.) The test of a sound Definition is that the Terms of a Proposition should be convertible. But as this can only be done when the terms of a proposition are of *exactly the same extent*, we have frequently to resort to what is technically called “Accidental Definition,”—that is, to a *Description* of the subject by assigning to it, or predicating of it, its Properties and Accidents.

Under this head might be conveniently considered the *Conversion of Propositions*, but I pass it by for the present as not needful to the object we have in view.

5. And lastly I may observe, that, as every

PART I. logical proposition aims at truth, such truth
 Sect. 2. should be severely tested :—
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1. *In Re*, as correspondent to objective truth,—that is, as existing for our apprehension in the nature of things.
2. *In Dictione*, as in conformity with the right use of Terms or Words.
3. *In Argumento*, or in the argument as a right conclusion from correct premisses expressed or implied. This last condition of a true Proposition remains to be explained, and we proceed to do so in the following Subsection.

SECTION II. (*continued.*)

Subsection C. *Reasoning or Sylloge.*

§ 23. I have now to claim the reader's admission of the position advanced in § 16, that, exclusive of the explanatory details which I have thought it desirable to introduce in the preceding subsection, I have in the one word *Generalization* stated the essential character of all *Logic*; as that, namely, by which the Understanding performs its office of collecting and sorting all impressions on the sense, inner and outer, of substantiating them as Thoughts or Logical conceptions by means of Terms or Words, and of registering them as acts of Judgement in the form of Propositions.

§ 24. We have now to consider the process,

by means of which the Conclusions are arrived at, of which the Propositions are the record. And it will be our business to show that what we call *Reasoning*, Discourse of Reason, or Logic, consists essentially in *Inference*—that is, in inferring some truth from another, known or accepted, and couched in a Proposition of the kind described.

§ 25. And herein will be found the statement of what constitutes Reasoning, and the *Principle of Reasoning*. In however questionable a shape a problem may present itself, and whatever contrivances may have been suggested for aiding and correcting the constant business of reasoning in all the daily concerns of life, there is only one and universal principle of Reasoning. This principle or Law—the discovery of which we owe to Aristotle, the father and founder of scientific Logic, is generally known under the phrase *Dictum de Omni et Nullo*, and it may be thus expressed: “Whatever may be predicated affirmatively (de Omni) or negatively (de Nullo) of a whole class or kind may be predicated in like manner of all and every one of the particulars which the class or kind contains.” Thus, if all men without any exception are mortal, each man must be mortal. As we have seen the Predicate “mortal” is the designation of the class or genus; and if it include all men, it cannot fail to include every man. The truth of this

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position it is impossible to deny, since every particular belongs to the class, of which it forms a part, by virtue of the *common mark* which constitutes the class;—just as the owner of a flock of sheep marks each, and, recognising the components of his flock by the mark, knows which are his, and is enabled to separate from them any strange sheep as having either no mark, or a mark other than his own.

I repeat then that, in the statement of the Principle just enunciated, we have found the whole sum and substance of what is called Logic.* But it is quite true that, for the due application of the principle, certain forms and rules will be found convenient, if not necessary. The most felicitous contrivance for this purpose is what is denominated the *Aristotelian Syllogism*, for it enables the reasoner to know by the *form itself* whether the reasoning be *correct*. But more must not be attributed to the form than a form deserves. It does not constitute the principle or law of Reasoning; but, as the regular form, it supplies a test, and in any doubtful case may be resorted to as a criterion, of the correct performance of the process: and though it would be impossible in practice for men to reduce all their reasonings to this

* The law of reasoning, above enunciated as the discovery of Aristotle, is itself a self-evident truth;—every act of reasoning can be explained by it, and no act of reasoning can be explained without it. And as the Father of Logic himself said—As the human hand in relation to the body, so *Logic* in relation to the human mind is “the instrument of instruments.”

strict measure of formal syllogism, it nevertheless provides and lays down certain rules which are of indispensable value. Least of all, however, can it be supposed to be any effective substitute for native Judgement or what has been called common sense and mother-wit.

§ 26. The model of syllogistic reasoning is the so-called *Categorical Syllogism*, and of this we proceed to give the Reader an account as far as the shortness of our canvas permits. Trite examples will be best suited to our purpose, since thereby the attention of the student will be more directed to the *Form* than to the matter; and we offer the following as familiar illustrations, the first as establishing an affirmative and the second a negative conclusion:—

(1.) All men are mortal; a King is a man; therefore a King is mortal;—

(2.) No man is immortal; a King is a man; therefore a King is not immortal.

In these, as in all similar instances, the validity and evidentness of the Argument are best secured by the formal conditions of syllogism. And it will be found that in this form we have to distinguish three Propositions and three Terms.

The three Propositions are respectively named:—*Major Premiss*;—*Minor Premiss*;—and *Conclusion*. And the mutual relations under which they constitute an Argument, or process of reasoning, may be explained as follows.

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1. In the major premiss the Subject is affirmed to be included in the class, which the Predicate designates, as: "All men are (included in the class) mortal."

2. In the minor premiss the Subject (or that concerning which the argument is raised, here "A King") is affirmed to be included in the Predicate of this premiss, or, what is tantamount, in the subject of the major, here in the sort or kind "Man;"—for the Subject of the major, and the Predicate of the minor, premiss are the same, and are so employed in order to establish the position that the subject of the minor is contained in, or is a part of the subject of the major premiss, and therefore included in its Predicate. Thus, our minor premiss is "A King is (included in the sort or kind 'man') a man."

3. In the *Conclusion*, the Subject of the minor premiss having been legitimately included, by means of the Predicate of the minor, in the subject of the major, the necessary consequence is announced by affirming that the Subject of the Minor is included in the Predicate of the Major, or according to our example, "A King is (included in the class designated by the Predicate) mortal."

On the other hand, as seen in the second or *Negative Example*, it is affirmed in the *Major Premiss* that no "Man" is included in the Class designated by the Predicate "immortal." But

if the whole class ("man ") is excluded from the Predicate "immortal," every part contained in the class must necessarily be excluded therefrom; and the object and unavoidable use of the second or *Minor Premiss* is to establish the position that its Subject, here "a King," is contained in the rejected sort or kind named "Man." And hence in the *Conclusion* it is announced as incontestable, that as no Man is immortal, so "A King is not immortal." *

It may be added, however, that, although the Syllogism is the most convenient and trustworthy form of establishing a truth, it contributes nothing to the force of the argument, and that, after all, the validity of any inference depends upon the principle—that a Predicate or logical

* Or, syllogism may be illustrated and analysed as follows :—

Major Premiss,—M is contained in P;—

Minor Premiss,—S is contained in M;—

Conclusion,—S is contained in P.

M = Middle Term. P = Predicate. S = Subject.

These constitute an Argument or a valid process of Reasoning, when they are related to each other according to the following *Rule* :—That the Predicate in the major premiss includes the Subject of the same, namely M;—that the Subject of the major premiss, M, being made in the minor premiss the Predicate, includes the Subject or S; and that this S, or the Subject, (regarding which the argument has been raised, having been proved in the minor premiss to be included in the class or kind which the subject of the major M designates) is shown in the Conclusion to be necessarily included in the Predicate of the major premiss. In short the validity of the Argument consists in this :—That S is contained in P, because it is contained in M, and M is contained wholly in P; that is, if P contains M, and M contains S, S must be contained in P. Or, negatively :—That S is not contained in P, because it is contained in M, the whole of which, and every part and portion of which, are excluded from and denied to be contained in P.

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term, which rightly designates, or which includes, a Class, rightly designates or includes whatever that Class contains. Or a logical term, which excludes a whole class, excludes whatever the class contains. This may be, however, illustrated by the consideration of the three Terms which have to be distinguished, as we have noticed above, in every syllogism.

The three Terms so distinguished are: 1. The *Major Term* or *Predicate*, which, if legitimately employed in the major premiss to include, or designate, the class constituting the Subject of the same premiss, may be employed in like manner in the Conclusion to include or designate a part of the Class in question. 2. The *Minor Term* is the Subject of the minor premiss and of the Conclusion, and designates the Part of the Class concerning which the argument is raised. 3. The *Middle Term* appears as the Subject of the major and as the Predicate of the minor premiss. It is the *hinge and very pivot* of the whole argument; for it is the term, which designating the Subject of the major as the Class included by the Predicate, must, in its assumed office of Predicate of the minor premiss, be shown to include the Subject of the same, as expressing the Part of the Class concerning which the argument has been raised.

The Middle Term therefore plays a very prominent part in every Argument; for it is the term, which, performing the double office of

including the Minor term or Subject and of causing it to be included in the Major term or Predicate, proves the case required by showing that the Subject, regarding which the Argument has been raised, is necessarily contained in the class designated by the Predicate;—and this is the question at issue. Thus, to find a Middle Term is often of the highest importance, and one of the first considerations in cases, in which we have to bring a particular case under a general rule or generalization. Say our great Newton, in his anticipation that “the Diamond is combustible,” but without the means of subjecting it to experiment, was obliged to test the opinion by reasoning on facts already known. He would seek a Middle Term designating a class which should include the Subject “Diamond,” and be included in the Predicate “Combustible.” Now this middle term he would have been enabled to obtain by his own researches in the refraction of light, which showed that “Whatever refracts light beyond the ratio of its density is combustible:”—and hence Newton’s argument might be represented *formally* thus:

Whatever refracts light beyond the ratio
of its density is combustible:

The Diamond refracts light beyond the ratio
of its density: therefore—

The Diamond is combustible.

It will be seen then that every argument reduces itself to the valid relation of three

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terms, whether this be expressed formally as a Syllogism or not. The question is, whether the given *Subject* is, or is not, included in the Predicate. And the answer required is: That the subject belongs to a class (designated by a middle term) which is affirmed or denied to be included in the Predicate. And this brings us back to the *Dictum* of the founder of Logic: "Whatever may be predicated affirmatively (de Omni) or negatively (de Nullo) of a whole class or kind may be predicated in like manner of all and every one of the particulars which the class or kind contains."

§ 27. The above applies to all *Mediate Reasoning*. And all *Logical Reasoning* is *mediate*, that is, consists in the position that a proposition being true, or admitted to be true, another proposition may be legitimately inferred from it. I do not stop here to inquire whether the distinction between *mediate* and *immediate judgements* be just or not, or whether there are *Truths* which may be properly called *self-evident*.*—though it may be safely asserted that every major premiss is either a self-evident truth or a foregone conclusion, and that it is only to the former that the appellation "immediate judgement" can really apply. But in respect of the validity of an Argument, the determination of which is now before us, it is

* Aristotle's dictum is an instance of a self-evident truth:—"Whatever is predicated of all is predicated of each of the same class."

necessary to observe that certain *Precautions* must be observed, in order to render the reasoning, whether in the form of a Syllogism or not, such as may be accepted to be true and to defy the charge of "Paralogism." And it is the more necessary to warn the student against the neglect of such precautions, because the form of the Argument may have been correctly observed, and the conclusion may be true, though the reasoning may be wrong and hence the argument invalid.

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In directing the attention of the reader to the Rules for avoiding Paralogism we propose however to confine our observations to what have been called *Logical Fallacies*. It will be found that a paralogism will take place in three cases of violation of the cardinal rules of sound conclusion, viz. those called by logical writers, 1. *Undistributed Middle*, 2. *Illicit process of the Major Term*, 3. *Illicit process of the Minor Term*. And the three cases have this in common, that a Term (middle, major or minor) is surreptitiously used as universal, where, according to the regular syllogistic form, it can be legitimately only used for, or applied to, a part of its significates.

1. *Undistributed Middle Term*. As we have seen in the preceding § the middle term M is to include the Subject S, and with it to be included in the Predicate P; but if M is undistributed—that is, does not stand for all its

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significates, but only for a part of them, the subject may or may not be included in the part, and the conclusion will be invalid or not necessarily consequential. Thus if it were argued: "Some boys are manly, John is a boy, and therefore John is manly:" the conclusion would be false in consequence of the middle term "boys" being undistributed, and leaving it therefore uncertain whether "John" the subject belongs to that part which is designated by "some boys." In order to prove that John is manly, the premiss ought to have been "All boys are manly," that is, the class "boys" should have been taken universally.* But this surreptitious use of the middle term as uni-

* Whately (Lessons on Reasoning, p. 26) says: "Again, take such an instance as this: Food (M) is (P) necessary to life; Corn (S) is (M) food; therefore Corn (S) is (P) necessary to life. Here P, 'necessary to life,' is affirmed of 'food,' but not *universally*; for every one would understand you to be speaking not of '*all* food,' but of '*some* food' as being 'necessary to life.'—The Rule has not been complied with; since that which has been affirmed not of the whole of a certain class, (or not universally) but only of a part of it, cannot on that ground be affirmed of whatever is contained under that class." In respect of *Mr. Hume's argument against miracles*, which Whately thus states: Testimony (M) is a kind of evidence more likely to be false than a miracle to be true; the evidence on which the Christian miracles are believed is (M) Testimony; therefore the evidence, on which the Christian miracles are believed, is more likely to be false than a miracle to be true: he says, "Here it is evident that what is spoken of in the first of these premisses, is '*Some* testimony;' not '*all* testimony' (or *any whatever*,) and by '*a* witness' we understand, '*some* witness,' not '*every* witness:' so that this apparent argument has exactly the same fault as the one above." Ibid. I may note, however, that if Hume's M means *All human testimony*, his argument, whatever its value, has not on that interpretation been fairly stated by Whately.

versal, when it in truth has only a partial significance, may not appear on the face of the argument as above. I take the following instance from Whately, Logic, p. 163, though the syllogism is in the 2nd Figure hereafter to be explained. It is an instance in which the conclusion might be valid, or true, if deduced from suitable premisses, and hence the paralogism might easily escape detection.

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The argument is this :—

All wise rulers endeavour to civilize the people ;

Alfred endeavoured to civilize the people ;

Therefore he was a wise ruler.

Here the middle term, M, is “endeavour to civilize the people.” It appears in both premisses ; it is that term which is to include the subject “Alfred,” and with it to be included in the Predicate “All wise rulers.” But the statement of the Argument does not warrant the conclusion. The middle term “endeavour to civilize the people” is affirmed to include “All wise rulers,” and in the minor premiss it is affirmed that the subject Alfred *is also* contained in the same middle term : but it does not follow that the subject “Alfred” is contained in that part which is affirmed to be included in the predicate, namely, “All wise rulers.” Because a Subject belongs to two classes designated by a common name, it does not follow that one class is contained in the other ; to adopt such a fallacy

PART I. would lead only to such absurdities as may be
 Sect. 2. illustrated by the following :—
 Subsect. C.

All vegetables grow ;

An animal grows ; therefore

An animal is a vegetable.

The fault here exposed is then that which has been called by Logicians the *undistributed Middle Term*. That is, the middle term, if undistributed or not taken universally in one of the premisses, does not, under the condition of the argument, include that part of the class to which the subject belongs. In order to a sound conclusion, the middle term ought to contain the whole, or every one of the class, of which the subject is part ; and then the subject may be rightly included in the Predicate containing the class of which the middle term is the designation.

There is however a defect of the middle term, which, although not belonging to the *logical* form, may be here conveniently considered, namely, that in which the middle term is expressed by an ambiguous word. It is unnecessary to say that an *Ambiguous Middle Term* is calculated to vitiate the reasoning, by allowing of the use of the term in one sense in the major premiss, and in another sense in the minor. This may happen in any case in which the term has not been defined as far as the meaning is concerned in the argument in which it is employed.*

* Comp. Whately on ambiguities in language. Logic, p. 176 ; and at p. 225 he says, "There are several kinds of joke and raillery which will

2. *Illicit process.* The rule against illicit process is :—No term must be “distributed” (stand for all its significates) in the conclusion, which was not “distributed” in one of the premisses ; —because you would then employ the whole of a term in the conclusion, when you had employed a part of it only in the premiss, and thus introduce a fourth term. The violation of this rule is called an illicit process of the major or minor term.

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The following is an example of illicit process of major term.

All quadrupeds are animals ;

A Bird is not a quadruped ; therefore

It is not an animal.

Here the major term or Predicate “animal” is not distributed in the major premiss ; it does not stand for all its significates, and may include not only quadrupeds, but other kinds of animals. But the predicate “animal” is distributed in the Conclusion by the word “not ;” for it means, Whatever is not included in the predicate or major term is not “animal,” and the predicate therefore stands for all its significates, for “animals,” including all sorts and kinds of animated beings, and amongst them “birds.” Observe the minor premiss affirms only that a “Bird” is not

be found to correspond with the different kinds of Fallacy: *the Pun* (to take the simplest and most obvious case) is evidently, in most instances, a mock argument founded on a palpable equivocation of the middle Term.”—Compare De Morgan, *Logic*, p. 238. on Fallacies.

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included in “quadruped,” but it does not say and cannot say that a “bird” may not be included in other kinds contained in the major term “Animal.” Therefore to affirm that a “bird” is not an animal is the unwarranted conclusion, that, because the subject is not contained in one sort which the major term designates, it is not contained in some other sort, which the major term may equally include in its meaning. The example we have above given is then an instance of the illicit process of the major term:—this term is used in a double sense, in the major premiss to signify a part only of its significates, in the conclusion to imply the whole of the class of things which it is intended to designate.

The *illicit process of the Minor term*, that is the Subject of the Conclusion, may be thus exemplified; (though it is to be observed that the Syllogism is in the 3rd Figure, of which more anon)—

All beasts of prey are (P) carnivorous;

All beasts of prey are (S) animals; therefore

All (S) animals are (P) carnivorous.

Here the minor term, or subject, is *undistributed* in the minor premiss, and nevertheless is taken *universally*, i.e. as *All* animals, in the conclusion. In the premisses it is affirmed that all beasts of prey are included in the class of carnivorous animals; but it cannot

follow that, because “carnivora” includes all such animals as are beasts of prey, it therefore includes all animals. In the conclusion then, the subject or minor term is *illicitly* made to stand for “all animals.” If the above syllogism be “*reduced*” to the 1st figure, the illicit process will be exposed by showing that the argument requires “some animals,” thus:—

All beasts of prey are carnivorous;

Some animals are beasts of prey; therefore

Some animals are carnivorous.

It appears then that in the above cases a Term, middle, major or minor, is made *surreptitiously* to apply as universal, where, according to the regular form of sylloge, it can only be legitimately used for, or applied to, a part of its significates. The inviolable rule is that, if the major term include the middle, it includes all that is included in the middle term, *but no more*.

§ 28. What has been incidentally mentioned in the preceding § in respect of “figure” requires the notice here of the so-called *Figures of the Categorical Syllogism*. They may be said to be *four* in number, and are distinguished from each other by the relative position of the *three* terms, as may be shown by the following diagram; observing that P = Predicate or major term, M = middle Term, and S = Subject or minor Term.

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<i>Fig. 1st.</i>	<i>Fig. 2d.</i>	<i>Fig. 3d.</i>	<i>Fig. 4th.</i>
M — P	P — M	M — P	P — M
S — M	S — M	M — S	M — S
S — P	S — P	S — P	S — P

Such interchange of the position of the Terms, and such only as is exhibited in the four figures, permits in each case of a valid argument. But, although it may be more convenient to adopt one of these figures rather than another according to the particular occasion requiring it, yet it ought to be borne in mind that the *first figure* is best fitted for general use and the most reliable against paralogism; that the *second figure* is only suited to negative conclusions; that, by the *third*, particular conclusions only can be drawn; and that the *fourth*, rejected altogether by some logicians, is capable only of exhibiting the partial inclusion of the subject in the predicate.

But how little the different figures are required for logical purposes will be at once apparent, when the fact is stated that the three latter figures are only disguises of the first, and that they may be reduced to the form of the first; rendering “it always possible to deduce in the first figure either the very same conclusion as the original one, or another from which the original one is deducible by illative conversion, that is, by equivalence in meaning.

See § on conversion of Propositions. It may be satisfactory to the reader to have before him an example or two of "*Ostensive Reduction*." Thus: Fig. 2.

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Whatever corrupts the moral character of
a people injures the State;

No just war injures the State;

No just war corrupts the moral character.

Reduction to Fig. 1.

What is not injurious to a State is what-
ever does not corrupt the moral cha-
racter;

A just war is not injurious to a State;

A just war is what does not corrupt the
moral character.

Another example may be offered in the third
Figure:—

Some desires are not blameable;

All desires are liable to excess;

Some things liable to excess are not blame-
able.

Thus "reduced" to Fig. 1.

All desires are liable to excess;

Some things not blameable are desires;

Some things not blameable are liable to
excess.

The "Reduction" has been here effected by
converting the major premiss by negation, and
then *transposing* the premisses. The conclusion
is the converse by negation of the original one.

§ 29. It will be convenient to the student,

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before quitting the subject of Categorical Syllogisms, to interpose some remarks on *the Uses of Reasoning*, as far as the principles of reasoning already established may be concerned. The primary form in which the Generalization of Experience meets us, and this in the *logical* acceptance of *Conception*, is that in which the mind occupies itself with like parts or properties in dissimilar objects, and in consequence of their likeness includes them in one class or generic Conception. Incalculable is the advantage of having thus the means of briefly recording our empirical knowledge, and of so classing its details as to be enabled at once to take a comprehensive survey and to select whatever part may be required for present application.

It will be readily seen that the process of forming generic conceptions depends upon the law of reasoning expressed in the Aristotelian *Dictum*, "Whatever may be affirmed, or denied, of all (that is, of every one of any kind) may in like manner be affirmed or denied of each of the same kind;"—a *dictum*, which approves itself by its *self-evident* truth. But it will also be seen that the process of Conception in question can be exercised only under the logical rule or canon of the Syllogism—and I speak here with special reference to the Categorical—as may be shown by any familiar example. Supposing a conversation turned on

the pyramids of Egypt, how should a child, or other ignorant person, know what was meant by "pyramid" unless previously explained? But when he learns that it is a solid body, which, from a square, triangular or other, base rises up diminishing to a point,—he obtains the conception of a class in which the "pyramids of Egypt" may be included, and draws a conclusion to that effect:—he has reasoned syllogistically, whether the Syllogism be expressed in a regular form or not. He has performed the three acts, which are indispensable to an Argument, namely Seclusion, Inclusion, and Conclusion: *—1. *Seclusion*, by means of a proposition in which the class is defined or described, and whose predicate may include whatever may be the subject for our judgment. Thus "Whatever body has a square, triangular or other base, &c., &c., is a Pyramid."

2. *Inclusion*. He then includes the subject submitted to his judgement, here namely the "pyramids of Egypt," in the class secluded by its characteristic marks, namely, "The pyramids of Egypt have these characteristic marks."

3. *Conclusion*. He infers that "they (whose name and nature he did not before 'understand') are Pyramids."

But if the foregoing be true, and the truth of the position may be safely asserted, it follows that what have been considered "immediate"

* Compare S. T. C.'s Logic.

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judgements, such as those which enunciate any immediate impression on the senses, have no valid claim to the title, and are really *mediate judgements*. And the reason is simply this, that the subject of the proposition must, in order to be a logical thought, be shown to be included in a generic conception or class. And it may be added that the propositions, which are supposed to express immediate judgements, are in truth *foregone conclusions*. Nevertheless I do not, and cannot, deny that those propositions, which express *self-evident truths*, must be regarded as *immediate judgements*, whatever may be the preparatory process, by means of which we are enabled to enunciate them as such:—they become then Truths for which no further *reason* can be given, since they are expressions of Reason itself, and are amenable only to the test of the *Principium Identitatis et Contradictionis*—according to which any proposition rests upon its self-evidentness, and it is seen that the assertion of the contradictory would involve self-contradiction. Thus: “What is all black cannot be all white.”

After the foregoing observations on the province of reasoning, we may readily and securely deduce from the principle of all logic, namely, “Whatever may be affirmed or denied, of all, i.e. of *every one*, of any class, or generic kind, may be affirmed or denied, of *each* of the same class or kind,”—under the authority of this self-evident

truth we may deduce, I say, the several uses in reasoning, to which logic may be applied, taking *Reasoning* to mean the *inference of one truth from another*.

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1. Perhaps the most simple case, and that which may be called *Simple Generalization*, is the process of forming a sort or kind by a "colligation" of like facts or phenomena in consequence of such likeness, and this likeness expressed by a common designation or generic term. It is a case of "mediate" reasoning, because it must be inferred that the "subject" of the reasoning, in consequence of a like attribute, belongs to a kind of which the attribute is the characteristic mark. The reasoning is so simple that it may pass unobserved as if merely a case of *noting* any given *likeness*; but that it is a logical process, if it is to have a logical value, will appear from the following statement, which is only another version of the Aristotelian *Dictum*.

Whatever objects have like parts or properties may be designated by the mark or marks which denote the parts or properties common to them, or may be affirmed to be included in, or belong to the same Genus. Thus,—Sheep, Goats and Oxen have the same common property, viz. "cloven feet;" therefore they may be included in the same Genus, of which "cloven feet" is the mark. Or,—All cloven-footed animals belong to the same class; Sheep, &c. have cloven feet; therefore they belong to the same class.

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Proceeding with the use to which reasoning may be applied, we may state as

2nd. *Simple Inclusion.* In principle this does not of course differ from the former, but it exhibits more distinctly the inference of one truth from another; as we may infer that, because all known cloven-footed quadrupeds are ruminant, therefore some newly discovered cloven-footed animal is ruminant:—or that, because all our doings which are defective in a right spirit are nothing worth, therefore “all our doings without charity are nothing worth.”

3rd. *Exemplification.* Thus we may exemplify, or give an example that, as patriotic self-devotion is the highest excellence of a citizen, so Regulus is an example of such excellence:—and it may be added that exemplification is scarcely less than indispensable in order to render an abstract proposition intelligible.

4th. *Application of a Rule to a Particular Case*; as when we have to bring any case under some established rule of practice, or under some accepted result of our generalized experience. Say, a prisoner is to be tried for murder, and the rule of law is, “All malicious homicide is murder.” It will be for the judge and jury to apply the rule in the particular case, and to decide whether the case at issue may be justly brought under the class of “malicious homicide.” In this case we proceed as in No. 2, namely from the general proposition or major premiss to

establish the minor, which contains, or expresses, the new instance or that which is to be included.

But there is also a second description of Inference, in which we have to proceed from the conclusion to the premisses, from which it has been deduced. And this we may call

5th *Proof*. For instance, if it were asserted that "Julius Cæsar crossed the Channel," and proof were required of the fact, it would demand the statement of some such argument as the following: "Whatever is stated by credible historians may be accepted as true; that Julius Cæsar crossed the Channel is stated by credible historians; therefore that Julius Cæsar crossed the Channel may be accepted as true."

6th. It may be required to *disprove* an assertion such as "The ancient Germans were Savages." For an argument, of which the conclusion would be, "The ancient Germans were *not* Savages," it would be necessary to find a class containing "the ancient Germans," which is excluded from or denied to be contained in the predicate "Savages;" and perhaps such a class may be found in "Those who have the use of metals." The argument may be conveniently stated in the 2nd figure of syllogism, thus:

No Savages have the use of metals;

The ancient Germans had the use of metals;

Therefore they were not Savages.

This illustrates the use of the second Figure, and shows in what arguments (negative) it may

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most conveniently be used ; but that the particular form is not necessary, i.e. that the Predicate and Middle term exchange places, may be shown by the conversion of the major premiss thus :—

All who have the use of metals are not
Savages ;

The ancient Germans had the use of metals ;

Therefore they were not Savages.*

* Whately, Logic, p. 88. “When we have to *disprove* something that has been maintained or is likely to be believed, our arguments will usually be found to take most conveniently the form of the second figure : viz. we prove that the thing we are speaking of cannot belong to such a class, either because it *wants* what belongs to the whole of that class (Cesare) or because it *has* something of which that class is destitute (Camestres) :—e.g. ‘No impostor would have warned his followers, as Jesus did, of the persecutions they would have to submit to ;’ and again, ‘An enthusiast would have expatiated, which Jesus and his followers did not, on the particulars of a future state.’” He adds that the third figure “is the form into which most arguments will naturally fall that are used to establish an *objection* (Eustasis of Aristotle) to an opponent’s premiss, when his argument is such as to require that premiss to be universal :—e.g. if any one contends that ‘this or that doctrine ought not to be admitted, because it cannot be explained or comprehended,’ his suppressed major premiss may be refuted by the argument that ‘the connexion of body and soul cannot be explained or comprehended, &c.’”

I cannot however feel assured that I understand Whately’s position. It appears to me that in his first illustration the argument stands thus :—

	P	M
E	No impostor would have predicted persecutions ;	
	S	
A	Jesus did predict persecutions ;	
E	Therefore Jesus was no impostor.	

If then “predict persecution” be the class designated by the middle term, the subject “Jesus” is affirmed to “*have*,” or to belong to a class which is destitute of “Impostors.”

On the other hand, if the argument be—

A	‘Enthusiasts expatiate on a future state.
E	Jesus did not ; therefore
E	Jesus was not an Enthusiast.

But the object of the present § was to exhibit, as far as ordinary circumstances might require it, the *Uses of Reasoning* or Inference. And the result of the brief survey teaches us, as far at least as the categorical syllogism is concerned, that *Formal Logic* consists in *Generalization*, that is, the logical process of bringing the facts and phenomena of Experience under their appropriate kinds or *Genera*; and that in all cases Generalization is a *logical* process implying Syllogism, or that the proposition, in which the Conclusion is couched, is the expression of a *Mediate Judgement*. Nay, it must be added that all propositions are conclusions, and consequently that all major premisses, excepting those which are self-evident truths, are really foregone conclusions, and are therefore not exempt from the condition of proof when required.

§ 30. It will be seen then that the result of a whole train of reasoning may be comprised in a single proposition categorically stated, in

Here it appears to me that the argument turns on showing that the Subject *wants* what belongs to the class. Just as we should say: Animals that have four legs are quadrupeds; a Bird has not, or wants four legs; therefore it is not a quadruped.

Probably the subject wants re-consideration. Perhaps the following might exemplify the *Eustatic Argument* in the Third figure.

M — P	}	Whatever cannot be explained is inadmissible.
M — S		
S — P		

What cannot be explained is the connexion of Body and Soul.

And as the conclusion would be absurd and contrary to the fact, it shows that the major premiss is inadmissible.

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which somewhat is predicated of a given “subject;”—and provided the due relations of the three terms, Predicate, Middle Term, and Subject, be preserved, the Argument will be valid, notwithstanding any informality in the statement. Indeed it would be a thankless task and an unprofitable labour to exhibit our arguments in series of syllogisms. But it is a logical duty to bear in mind (and equally with regard to our own reasoning and to that of others) what the proposition is, which it is intended to establish, and whether the establishment is legitimately effected by means of a suitable middle term;—And in like manner, when we are looking for the rule which is to give general or universal validity to the “Subject,” whose Predicate is still problematical, that we select a middle term best fitted to justify the predicate and include or exclude the subject. Thus, by way of example, take Paul’s Epistle 1 Cor. ch. 13, of which the subject is the praise of *Charity*. We may suppose that the proposition intended to be established is: “Charity is the highest excellence.” Here “Charity” is the Subject, and “highest excellence” the Predicate, and we want to find the middle term, which working in Paul’s mind, justified him in coming to the conclusion, which he draws. It is not improbable that the following, or something tantamount, may have been the middle term which was tacitly adopted by him, viz.:—

“Whatever in human society best promotes amity, suppresses enmity, and thereby binds each to each and each to all;” and by the addition “is the highest (social) excellence” the suppressed major premiss would have been completed. The minor premiss would then have been “Charity best promotes amity, &c.,” and therefore “Charity is the highest excellence.” But, in order to display the fulness of Paul’s argument, the minor premiss must be amplified by the special illustrations which Paul gives of the work of charity; such as it “beareth all things, believeth all things, hopeth all things, endureth all things,” together with the other attributes specified which will be found to be conditions under which amity is promoted and enmity suppressed. But something more was required in order to vindicate the claim of charity to the “highest” dignity; and accordingly the argument is furnished with the supplement well expressed in the Collect for Quinquagesima Sunday, viz.: “All our doings without charity are nothing worth; and thus faith, knowledge, prophecy, even martyrdom, if without charity, are nothing worth.” The argument is summed up by the statement:—“That which is perfect alone endureth; Charity is that which is (always) perfect; and therefore it alone endureth.”

§ 31. The object of the foregoing § has been to show that there exists no real difficulty in attaining to a clear logical scheme of an Argu-

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ment, as far as may be necessary to test or to derive aid from the rules of Logic, without the necessity of setting out formally the syllogisms which are implied. But in so doing we ought ever to be on our guard against the *Fallacies in Reasoning*, the danger of which continually besets us, and which may easily escape detection without constant vigilance. Of the logical fallacies we have already spoken in § 27 ; and to those we added that arising from the use of an ambiguous middle term. But others, which have been considered by Logicians as *Extra-logical*, also deserve attention, though our space does not permit us to discuss them in detail in conformity with the objects here in view. We may here however notice a few, and for the rest refer the student to the writings of professed teachers of Logic.

I subjoin the following from De Morgan's (Logic, p. 241) account of the *Aristotelian System of fallacies*. It consists of two subdivisions. In the first, which are *in dictione* or *in voce*, the mistake is said to consist in the use of words : in the second, which are *extra dictionem*, or *in re*, it is said to be in the matter.

Of the first set, *in dictione*, six kinds are distinguished, as follows :—

1. *Equivocatio* or *Homonymia* ; giving really no middle term (if the middle term be in question) or a term in the conclusion which is not the same name as that used in the premiss. Ex.

“Finis rei est illius perfectio; mors est finis vitæ; ergo mors est vitæ perfectio.” Here the ambiguity may be thrown on *finis* or *perfectio*. See other examples, especially those in which the ambiguity arises from changes in the meaning of words.

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2. *Fallacia amphiboliæ* differs in nothing from the last, except in the equivocation being in the construction of a phrase, and not in a single term (doubtful construction). The example may be the oracle delivered to Pyrrhus:

“Aio te Æacide Romanos vincere posse,” which may be construed, “That thou shalt conquer the Romans,” or “That the Romans shall conquer thee.”

Or, “Quod tangitur à Socrate illud sentit; columna tangitur à Socrate; ergo columna sentit.” In the major proposition “sentit” means he, i.e. Socrates, feels. In the conclusion, the same word means “feels Socrates.”

3, 4. *Fallacia compositionis*, and *fallacia divisionis*, consist in joining or separating those things, which ought not to be joined or separated:—f. compositionis, when what is proposed in a *divided* sense is afterwards taken *collectively*, as “Two and three are even and odd; five is two and three; therefore five is even and odd:—f. divisionis, when what is proposed in a *collective*, is afterwards taken in a *divided*, sense, as “The planets are seven; Mercury and Venus are planets; therefore Mercury and Venus are seven.”

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5. *Fallacia prosodiæ* or *accentús* was an ambiguity arising from pronunciation. De Morgan says: "A very forced emphasis upon one word may, according to usual notions, suggest false meanings. Thus, "thou shalt not bear false witness against thy neighbour," is frequently read from the pulpit either so as to convey the opposite of a prohibition, or to suggest that subornation is not forbidden, or that any thing false except evidence is permitted, or that it may be given for him, or that it is only against *neighbours* that false witness may not be borne."

6. *Fallacia figuræ dictionis*, when, from any similitude of words, what is granted of one is by a forced application predicated of another; as, "Projectors are not fit to be trusted, therefore he who has formed a project is not fit to be trusted." Whately.

All these fallacies come under the head of ambiguous language, and amount to nothing but giving the syllogism four terms, two of them under the same name.

The Fallacies *extradictionem* or *in Re* are set down as follows.

1. *Fallacia accidentis*; and, 2, *Fallacia à dicto secundum quid ad dictum simpliciter*. The first of these ought to be called that of *à dicto simpliciter ad dictum secundum quid*, for the two are correlative in the manner described in the two phrases. The first consists in inferring of the subject with an accident that which was

premised of the subject only: the second in inferring of the subject only that which was premised of the subject with an accident. Of the first we may give the instance "Wine is pernicious, therefore it ought to be forbidden." The expressed premiss refers to wine used immoderately: the conclusion is meant to refer to wine however used. Of the second the trite example is: "What you bought yesterday, you eat to-day; you bought raw meat yesterday; therefore, you eat raw meat to-day." The major premiss refers to anything bought, the conclusion regards meat with the accident "raw."

"All the fallacies, which attempt the substitution in one form for the *same thing* (as it is called) in another, belong to this head: such as that of the man who claimed to have had one knife twenty years, giving it sometimes a new handle, and sometimes a new blade."—"More serious difficulties have arisen from the attempt to separate the essential from the accidental, particularly with regard to material objects." Cartesian doctrine adduced p. 252, *ibid*.

3. *Petitio Principii*. It is translated by the phrase *begging the question*, that is, assuming the thing which is to be proved. This is also called *reasoning in a circle*, coming round, in the way of conclusion, to what has been already formally assumed, in a manner expressed or implied. Thus "if a Papist should pretend to prove that his religion is derived from Christ

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and his Apostles because it *agrees with* the doctrine of all the Fathers of the Church, all the holy martyrs, and all the christian world throughout all ages (quod semper ubique et ab omnibus) he would be met by the objection, that the great point in contest is, whether his religion does agree with that of all the ancients and the primitive christians, or no." Watts's Logic, p. 315. He has assumed what he had to prove. De Morgan says (p. 256) that Aristotle "by the word *principium* distinctly means *that which can be known of itself* ('principium' being the major). He lays down five ways of *assuming* that which ought to come out of a self-known principle of which begging the question is the first." Comp. loc. cit. p. 256.

For the following remark the author of this work is alone responsible. The fallacy of begging the question regards Proof; and when, for proof, the conclusion is passed off in the major premiss (only repeated in general terms) the fault is committed; and equally, when the conclusion is merely a repetition of the major proposition in the form of a particular case. Thus it would be a *petitio principii* to say "Whatever is, is right," as proof of the rightness of any species of wrong, as:—

Whatever is, is right;
Dishonesty is; therefore
It is right.

In such cases it will be found that there is

really no inference, and therefore no argument ; it is but the re-statement of the same proposition, varied by general or specific terms,—a repetition of the same thing in other words, and not an inference of one truth from another.

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The above might have claimed the character of reasoning, if stated thus :—

Whatever is, or exists, in conformity with
the laws of Providence is right ;

Evil is, or exists, in conformity with, &c. ;

Evil is right.

Though, not to mislead the student, I ought to add that the principium or major premiss is false, and that Evil is not in conformity with the laws of Providence.

4. The *Ignoratio Elenchi*, or ignorance of the refutation, is what we should now call answering to the wrong point, or proving something which is not contradictory of the thing asserted. Wesley (Logic) calls it “an argument that indicates ignorance of the point in dispute ; an irrelevant conclusion.” Watts (Logic, p. 314) says “it is a *mistake of the question* ; that is, when something else is proved, which has neither any necessary connexion or consistency with the thing inquired ; as if the question be proposed whether excess of wine can be hurtful to him that drinks it, and the Sophister should prove that it revives his spirits, it exhilarates his soul, it gives a man courage, and makes him strong and active, and then he takes it for granted that

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he has proved his point. But the respondent may easily show that tho' wine may do all this, yet it may be finally hurtful to the soul and body of him that drinks it to excess." See De Morgan's remarks on *proving a negative*, *ibid.* p. 260.

5. *Fallacia Consequentis* (now very often called a *non sequitur*) is the simple affirmation of a conclusion which does not follow from the premisses.

6. The *non causa pro causâ*. This is the mistake of imagining *necessary connexion* where there is none, in the way of *cause* considered in the widest sense of the word.

Any further investigation of the sources of fallacy in a work of this kind would be out of place. I therefore forbear to speak of the *fallacia plurium interrogationum*, which consists in trying to get one answer to several questions at once; of the *Extreme Case*, though it is often the only test by which an ambiguous assumption can be dealt with; of the different modes of *Evasion*; and of the fallacies which depend upon wrong notions of the *Quantity* of propositions.

Finally, let it be remembered in taking a retrospect of categorical reasoning, that formal logic can do no more than give the rules for drawing a valid conclusion, assuming the premisses; but that the premisses may be right or wrong, and that they require for determining their truth the sound judgement which belongs to an understanding enlightened by Reason. And

if any criterion be required in following up our reasonings to their first principles (*ἀρχαί*) it may be found in the condition that the only major premiss, which does not, and cannot, require proof, is a proposition containing the statement of a self-evident truth, and to suppose the contradictory of which would be self-contradictory.

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Continuation of Subsection C.

Hypothetical Syllogism.

§ 32. Hypothetical Judgements are those which express a relation of connexion between two propositions, or of dependency of one on the other, as in the case of cause and effect, or of condition and conditioned;—ex. gr., if alcohol inebriates, it is unwholesome;—if the temperature is high, the thermometer rises.

The connexion between the two propositions is assumed to be necessary, and this necessary connexion is expressed in a major premiss, of which the prior proposition is termed the *Antecedent*, and the latter the *Consequent*: and the argument is that “if” the first be granted, the second inevitably follows. But in order to complete the syllogism or judgement, the antecedent must be affirmed or the consequent denied, and this constitutes the *minor premiss*. Without this affirmation or denial, the ground only of the judgement would have been stated, and the point at issue left undetermined. But by affirm-

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ing the antecedent, or denying the consequent, the conditions are fulfilled by which the *Conclusion*, in respect of the connexion or dependency of the propositions, may be drawn, and expressed by an affirmative or negative proposition. Syllogisms in which the antecedent is granted are called *Constructive* (modo ponente.) Syllogisms, in which the consequent is denied, are called *Destructive* (modo tollente).

Examples.

Major. If A is B; C is D. If rain has fallen, the ground is wet.

Minor. But A is B. But rain has fallen.

Conclusion. C is D. The ground is wet.

If A is B, C is D. If rain has fallen, the ground is wet.

But C is not D. But the ground is not wet.

Therefore A is not B. Therefore rain has not fallen.

The rules then are: 1. The antecedent being granted, the consequent may be inferred. 2. The consequent being denied, the antecedent may be denied.

By denying the Antecedent, or affirming the Consequent, nothing can be inferred, because the same consequent may follow from other antecedents. Rain may not have fallen, and yet the ground may be wet; * or the ground may be wet, and yet no rain have fallen;

* Here the antecedent is denied.

because dew, or an inundation would produce the same effect.*

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Thomson (*Laws of Thought*, p. 154) speaking of hypothetical judgements remarks that there are only five arrangements of the terms, in four of which there are but three terms, and in the fifth four. Of the last—"if A is B, C is D" he gives the example: "If the moon exerts her attractive force in the same line as the sun, the tides are at the highest." On this, he observes, "that the fifth alone expresses two separate facts, brought together as cause and effect, while in all the rest, from the recurrence of a term in both clauses, it is impossible to separate entirely the two things stated. This leads to the observation of a real difference in their nature. Without attempting to examine the origin of our idea of cause and effect, we may state, as a thing generally admitted, that all men are accustomed to regard some one fact as the necessary result of another, which they have observed invariably to precede or accompany it; and that they may learn, however different in nature the two facts may appear, to identify them so far as invariably to expect the effect where they have observed the cause."—"And when the connexion between them (the two facts) is stated, in a hypothetical (that is, a conditional) judgement, the truth of the statement will entirely depend upon the

* Here the consequent is affirmed. (*Comp. Wesley, Logic*, p. 44.)

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correctness of our observation, since there can be nothing in the statement itself to serve as a criterion of its truth." That, if A is B, C is D, is a statement for which "we have no test but the application of our idea of cause and effect to the facts for which these letters stand." —But, in respect of the cases, in which there is a term repeated or only three terms (as If A is B, A is C) "we appeal not to the idea of cause and effect, but to a categorical judgement of which the materials are before us. 'If A is B, A is C' will be true, provided 'All B is C' be true. 'If this be an equilateral triangle, it is also an equiangular' must be tried by the rule 'All equilateral triangles are equiangular.' Here is no notion of a cause; but a statement of a rule, with the supposition that some one case comes under it. It really means, not that one event is caused by another, but that a conception has certain marks; which is the function of the categorical judgement." The whole passage is highly deserving of the student's consideration.

It would appear then that the genuine characteristic of the hypothetical judgement is that of bringing two distinct facts, or statements of facts, into the relation of, or correspondency to, the category of cause and effect. And it will be seen that the statement in the Major premiss, "If A is B, C is D" exactly agrees with the empirical use of the

category in assigning in any case the *Antecedent* and the *Consequent*; and that as a necessary connexion is assumed or implied, the name of the category would be correctly stated as that of *Dependency*, that is, of the dependency of the Consequent on the Antecedent. It may be noted, however, that this "Dependency" is, in respect of empirical knowledge, the work of mental attribution; for although, as Thomson says, "the truth of the statement will entirely depend upon the correctness of our observation," the two facts would never "be inseparably linked together in our minds as a cause and an effect," unless our minds supplied the "necessary connexion" which in any invariable sequence of events we are justified in assuming.

I have made the above quotations from Thomson's "Laws of Thought," in order to strengthen my own similar views, which I ventured to advance long before I read his observations. And I refer here to a paper (unpublished) wherein I say:—"Whatever may be thought of the position, it is clear that the distinctive character of the Hypothetical argument differs from that of the Categorical or the argument by Inclusion, in that it is essentially based upon the principle in the human mind of a *Causal Nexus*, or that of the relation of Cause and Effect."

Subsection C (*continued*).

Disjunctive Syllogism.

§ 33. A disjunctive Syllogism consists of two or more categorical propositions so stated as to imply that *some one* of them at least is true, and generally that but one can be true; as "It is either day or night."

By denying one of the categoricals of a disjunctive proposition, if there be but two, you may infer the truth of the remaining one; as, "It is either day or night: but it is not day; therefore it is night." By denying one of them, if there be several, you may infer the truth of *some one* of the remaining ones; as, "It is either Spring, Summer, Autumn or Winter; but it is not Spring; therefore it is either Summer, Autumn, or Winter." By denying all but one, you will infer the truth of that one; as, "It is neither Spring, Summer, nor Autumn; therefore it is Winter."

When it is implied that only one of the categoricals can be true, by *affirming* one, you of course deny the rest; as, "It is either Spring, Summer, &c.; but it is Spring; therefore it is neither Summer, Autumn, nor Winter." Wesley, *Logic*, p. 45.*

So far we proceed upon the ground of ordinary logic. But the argument of the disjunctive syllo-

* For an account of the *Dilemma* the reader is referred to the manuals of Logic, ex. gr. Wesley's p. 47, or Watts's p. 302.

gism has a far wider range, and is one of the principal instruments of the process which we may call *Distribution*. Thomson (Op. cit. p. 150) in speaking of Definition “as any conception, which from having precisely the same sphere as another conception, may be used to ascertain its nature and mark out its limits”—Thomson, I say, mentions, in speaking of the sources of definition, two;—that from *Division*, and that from *Colligation*. The first, “where we define the subject by enumerating its dividing members; as Britons are those who dwell in England, Scotland, or Wales.” He adds, “All the judgements called Disjunctive are under this head.” The latter or Colligation is “the exact reverse of the last; where the dividing members of a conception are enumerated in the subject, and the divided conception itself added to define them; as “historical, philosophical and mathematical sciences are the sum (i.e. *are all or equal*) of human knowledge.”

If the reader will refer to § 13 he will find that we have here to re-consider the category of “the Whole and its parts” in the logical form of the Disjunctive Syllogism. Thus I there say:—“Every whole in the physical or moral world shall be regarded as an *Unity of interdependent Parts*, and as such by virtue of a generic conception, or Type, which, in providing the unity in one dominant and comprehensive Thought, determines the relations of the Parts as specific

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and integral constituents of the conceptual Whole;—that is, the One dominant, or fundamental, *Conception* which gives intelligibility to the whole, reappears in each and all of the parts as the Specific opposed to the Generic.” Why the category of the Whole and Parts should be intimately connected with, or resolve itself into, the Disjunctive form of Judgement will be apparent, if we reflect on the primary rules for the Division or Distribution of a Subject into its component parts or members:—viz.,—“the Parts of the Division ought to exhaust the whole Subject which is to be divided;” and “the several parts of a Distribution ought to be so opposed, distinctively to each other, that one species or kind, *in the same rank of division*, shall not contain or include another.” Hence it will be seen that the several parts, in relation to each and all others, imply the test of a disjunctive judgement expressed as, “It is *either A or B or C or Z.*”

The Rules ordinarily given for logical Division (see Wesley, index in verbo) are three. 1st. “Each part *singly* taken must contain less (i. e. have a narrower signification) than the whole. Thus ‘Weapon’ could not be a division of the term ‘Sword.’ 2nd. All the parts collectively must be exactly equal to the subject divided, or as the logicians say, the parts of a division ought to exhaust the whole of the subject which is divided.

* Comp. also Thomson, op. cit. p. 247.

In dividing the term 'Weapon' into 'Sword,' 'Pike,' 'Gun,' &c., we must not omit anything of which 'Weapon' can be predicated, nor introduce anything of which it cannot. 3rd. The parts or members must be *opposed*, i.e. must not be contained in one another. 'Book' must not be divided into 'Quarto,' 'French;' for a French book may be a quarto, and a quarto French. N.B. You must always keep in mind the *Principle of Division* with which you set out, ex. gr. whether you begin to divide 'Books' according to their *size, language, matter*, or other head."

"It may be observed that a distinction has been made between *Logical and Physical Division*. In the former you may predicate the divided whole of every dividing member. Thus 'Weapon' may be predicated of 'Sword,' 'Pike,' 'Gun.' This cannot happen in the case of physical division. 'Gun' cannot be predicated of 'the Lock,' 'the Stock,' or the 'Barrel.'" Ibid. Thus a "Tiger's claw" cannot be termed a species of the genus Tiger; but still the division is logical, for, although a part of the physical whole termed "Tiger," it is a species of the genus "claw," and amongst other "claws" it is a "Tiger's claw."

The category of "the Whole and its Parts" is really founded, as I shall hereafter show, on the Idea of the Integration of an exhaustive Manifold of Distinctive relations of Being in the Unity of Type out of which they sprang and are

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derived. And this view will find its justifying ground in the "Idea of the Will, considered as the Absolute Cause of all Reality." The difference between the conceptual category (or mould of concipiency) of the Understanding, in aid of empirical Knowledge, and the "Idea" of Reason above adverted to, is—that the former proceeds from the data of experience, and does not, like the "*Idea*," contemplate *the genetic development* of the Manifold contained in the Principle or causative Law. The procedure of the Understanding is to *generalize*, that is, to bring the facts of Experience under appropriate genera; and hence it will be seen that the main business of the Understanding, working according to the category of the "Whole and its parts," is that of Classification in aid of the Sciences which have been called "Classificatory."

I have already in § 21 pointed out the difference between *Attribution* and *Inclusion* in respect of the relation between Subject and Predicate;—that, in the former, attention is directed only to the application of a right attribute or designation of the Subject; while in the latter the attention is directed to the variety, number and difference of the species included in the Genus designated by the predicate:—ex. gr. All animals that chew the cud, such as the ox, goat, sheep, deer, are included in the genus Ruminant.

In further prosecuting the account of the work of Classification the reader may be reminded of

the nature and relation of classes, the principle of which has been already described as that of *Likeness and Difference*; and the following, principally adopted from Whewell (*Philosophy of Inductive Sciences*, p. 460) will show briefly the means of the “*logical*” application of the principle in question. “Porphyry wrote an Introduction to the Categories of Aristotle, which is entitled ‘*On the five Words.*’ The ‘five Words’ are *genus, species, difference, property, accident*. Genus, and Species are superior and inferior classes, and are stated to be capable of repeated subordination. The ‘most general genus’ (*genus supremum*) is the widest class, the ‘most special species’ (*species infima*) the narrowest. Between these are intermediate classes, which are genera with regard to those below, and species with regard to those above them (subalternans). Thus Being is the most general genus; under this is Body; under Body is Living Body; under this again Animal; under Animal is Rational Animal or Man; under Man are Socrates and Plato, and other individual men.*

“The Difference is that which is added to the

* “It will be seen that Genus and Species are the only two distinctions recognised by logicians for the purpose of sorting kinds, but naturalists finding the difficulty of grouping the multifarious details of their branches of science have adopted other terms for the gradation and subordination of genera, and the most common are:—*Classes, Orders, Genera* and *Species*, in which we have others interpolated as Sub-genera or Section of Genera. The expressions *Family* and *Tribe* are commonly appropriated to natural groups; and we speak also of the Vegetable, Animal and Mineral *Kingdom.*” Whewell.

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Genus to make the Species ; thus Rational is the Difference by which the genus Animal is made the species Man ; the Difference in this technical sense is the ‘Specific,’ or species-making Difference. It forms the Definition for the purposes of logic, and corresponds to the ‘Character’ (specific or generic) of the natural Historians.

“Of the other two words, the Property is that which, though not employed in defining the class, belongs to every part of it : ‘What happens to all the class, to it alone, and at all times ; as to be capable of laughing is a property of a man.’

“The Accident is that which may be present and absent without the destruction of the Subject, as to sleep (?) is an Accident (a thing which happens) to man.”

I subjoin from the same author the following remarks (Op. cit. p. 457) on the *Gradation of Kinds*, or classes indicated by common names in virtue of some resemblance which individual objects possess. “Common names then include many individuals associated in virtue of resemblances, and of permanently connected properties ; and such names are applicable as far as they serve to express such properties. These collections of individuals are termed Kinds, Sorts, Classes. But this association of particulars is capable of degrees. As individuals by their resemblances form Kinds, so Kinds of things, though different, may resemble each other so as to be again associated in a higher class ; and

there may be several successive steps of such classification. *Man, horse, tree, stone*, are each a name of a kind; but *animal* includes the two first, and excludes the two others; *living thing* is a term which includes animal and tree, but not stone; *body* includes all the four." Compare Thomson, *Laws, &c.* p. 100.

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“Characters of Kinds.—When we have a series of names and classes, we take for granted irresistibly that each class has some *character*, which distinguishes it from other classes included in, the superior division.”—“We entertain a conviction that there must be, among things so classed and named, a possibility of defining each.” “Our persuasion that there must needs be characteristic marks by which things can be defined in words, is founded on the assumption of *the necessary possibility of reasoning.*”

“The reference of any object or conception to its class without definition, may give us a persuasion that it shares the properties of its class, but does not enable us to reason upon those properties. When we consider man as an animal, we ascribe to him in thought the appetites, desires, affections, which we habitually include in our notion of animal; but except we have expressed these in some definition or acknowledged description of the term animal, we can make no use of the persuasion in ratiocination. But if we have described animals as ‘beings impelled to action by appetites and

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passions,' we can not only think, but say, 'man is an animal, and therefore he is impelled to act by appetites and passions.' And if we add a further definition, that 'man is a reasonable animal,' and if it appear that 'reason implies conformity to a rule of action,' we can then further infer that man's nature is to conform the results of animal appetite and passion to a rule of action.

Difficulty of Definitions.—“But though men are, on such grounds, led to make constant and importunate *demands* for definitions of *the terms* which they employ in their speculations, they are in fact far from being able to carry into complete effect the postulate on which they proceed, that they must be able to find definitions which by logical consequence shall lead to the truths they seek. The postulate overlooks the process by which our classes of things are formed, and our names applied. This process consisting, as we have already said, in observing permanent connexions of properties, and in fixing them by the attribution of names, is of the nature of the process of induction, of which we shall afterwards have to speak. And the postulate is so far true, that this process of induction being once performed, its result may usually be expressed by means of a few definitions, and may thus lead by a deduction to a train of real truths.” Compare § 22 ante, on Definitions; not forgetting the distinction between Essential and Accidental

Definition, and that *Essential Definition* consists PART I.
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It cannot have escaped the attention of the reader that the work of Definition is intimately connected with the process of categorical reasoning, and that, in order to vindicate the position of any part or member of a scheme of Classification, it will be necessary to resort to categorical syllogism. Whewell has above rightly referred to the claim of Induction in the process of Definition, as based upon the results of empirical knowledge; but it will be seen from the example which he has given in the former paragraph, how large a share reasoning has in the process. Thus:—

Whatever beings are compelled to act by
appetites and passions are animals;

Man is compelled so to act; therefore

Man is an animal.

Or if we are to justify the further definition which he gives, it would, or might, stand thus:—

Whatever animal acts in conformity to a
rule of conduct is rational;

Man acts in conformity to a rule; therefore

Man is rational, or a rational animal.

§ 34. It now remains that something should be said on the subject of *Artificial and Natural Classification*, or, in other words, on the exercise

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of the understanding in that specific Form of Conciency which is called “the category of the Whole and its Parts.”

It would appear that our first attempts at *Classification* of the products of nature—and the same holds good with respect also to the classification of mental objects and psychical phenomena,—that the first attempts at classification are those which have the same origin as all our *thoughts* of things, and depends upon a comparison by which we note the *Resemblances* and *Differences* of the objects offered for our Attention. And further that, in order to give such attempts the character of Science, we are under the necessity of giving Definitions, or adequate Descriptions, of the meaning of the generic conceptions and terms employed, and of proceeding according to the Rules of technical Logic. Thus far the procedure may be correctly described as the method of *Artificial Classification*. At the same time, it has been justly observed by Dr. Whewell that in arranging the products of nature there are always reasons, which oblige the naturalist to conform his distribution to characters strictly of a natural kind and founded in *rerum naturá*. In his XC. aphorism he observes:—“An *artificial System* is one in which the *smaller* groups (genera) are *natural*; and in which the *wider* divisions (classes and orders) are constructed by peremptory application of selected characters (selected however so as not to break

up the smaller groups).” It may be further observed that attempts have been made to enlarge and rectify the divisions of the artificial method by rendering the characteristics of each more comprehensive. Thus Adanson, dissatisfied with the narrow base on which the sexual system of Linnæus is founded, adopted the method of “making many artificial systems, in each of which plants were arranged by some one part, and then collecting those plants which came near each other in the greatest number of these artificial systems, as plants naturally the most related.” Whewell, *Op. cit.* vol. i. p. 483. So Hunter arranged the animal kingdom in as many ways as there are organic functions;—considering each organ by itself, he formed, by pursuing its modifications, a series of groups characterised by that organ alone. See Owen’s preface to the 4th vol. of Hunter’s works, 8vo edit. But, although a plan of this kind may be calculated to assist in the formation of a natural classification by facilitating comparison, it yet fails in the main requisite, by leaving undetermined the *law of the proportional development* of the several organic systems, in their relation to each other, by varying conditions of co- and sub-ordination, in order to the constitution of the fixed types of living being.

But if we are to go beyond the merely logical or artificial method of classification—as indeed by our constitution as rational beings we are

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bound to do—and at all events to approximate as far as we are able to a method of *Natural Classification*, that is, one coincident with the laws of nature impressed thereon by the Creator, we have to discover principles, which though not superseding the use of logic, transcend the boundaries of empirical knowledge. With this view Whewell has directed our attention to the “*idea of natural affinity*,” of which he says (Op. cit. 519):—“I tappears that our idea of Affinity involves the conviction of the *coincidence of natural arrangements formed on different functions*; and this rather than the principle of the subordination of some characters to others, is the true ground of the natural method of classification.” Further on, p. 529, he says:—“The correspondence of the inclinations is the criterion of Natural Classes; and this correspondence may be considered as one of the best and most characteristic marks of the fundamental idea of Affinity. And the maxim by which all systems professing to be natural must be tested is this:—that *the arrangement obtained from one set of characters coincides with the arrangement obtained from another set*.” Or as I should prefer to express it:—that, in seeking insight of the laws by which the Creator has regulated the systematic unity and diversity of the organism and œconomy of His creatures, it will be our business to proceed by investigating the conditions of

natural affinity: and that in this investigation we may safely adopt the rule:—that the more numerous the resemblances and coincidences in character, habits, properties, organization, functions and agencies, of groups and components of groups, the safer will be the inference of their natural affinity, and the greater the surety of the identification of the Idea, or genetic Type out of which they have proceeded, and consequently the more secure the ground upon which to found a Natural Method of Classification.

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But in this process of investigating the forms (*formæ formantes*) of nature, our final aim, and that which an acquaintance with the facts and phenomena of nature, even when they are made mental acquisitions by means of the logical faculty, does not attain,—our final aim is to discover the *Type*, the Key-stone of the arched fabric of nature's works. Whewell, Aphorism XCIII. says justly:—"A natural group is steadily fixed, though not precisely limited; it is given in position, though not circumscribed; it is determined, not by a boundary without, but by a central point within;—not by what it strictly excludes, but by what it eminently includes;—by a *Type* not by a *Definition*." We are in short no longer within the precincts of the faculty judging according to experience, but are appealing for light and insight to the higher faculty of Reason. It is hence only that is revealed

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to us the Type as the antecedent and genetic unity, which confers the essential and abiding character on any and every group, and which, whilst preserving the unity, manifests itself in the diversity of forms or products, of which the group consists, at once entire in each and in all:—and it will be our business to find in every relative and subordinate type that which connects it with some higher type, until, proceeding from lower to higher, we arrive finally at the highest and absolute *Archetype*, even the Divine Humanity, who is *Deus Alter*. The proof of this sublime contemplanen must indeed be reserved for a more fitting place than the present; but meanwhile let it be remarked that a class founded on a generic conception is an empirical abstract, whereas a class founded on a *Type* or *Idea* is a *causative principle*. Thus if we interpret the facts of *Embryology* according to the typical principle, we find Life working according to a pattern; and we arrange the phases of operance in a graduated and connected Series of evolutions, anticipated from the beginning and achieving finally the perfected result.

An attempt to realize and carry out these principles has been made in my Hunterian Oration entitled “Vital Dynamics.” For the exposition of the Idea I may refer the reader to that part of the work, which begins at p. 30, and I shall content myself here with the follow-

ing quotation in aid of the intelligibility of the principle asserted :—" Growth, Motion and Feeling :—such are the universal characters, under which animated being is alone conceivable. And it is in contemplating these functions as forces of one subject or power, that we learn the aim and purpose of the actuating Idea in the development of an organism, as intending a living Body,—that is, a sphere of act and existence, as the indispensable medium and condition of the manifestation and working of that which in and of itself is essentially supersensuous—a living subject or power. But if growth, motion and feeling, constitute the universal characters of animated beings, and must therefore be predicated of the lowest, we shall find, in bringing before our minds the different orders of creatures and ranks of animals, that these are differenced by a relative subordination of these forces. If in the germ the living subject exists in and from itself; if in a higher form of development, first of growth, and then of growth with instinctive motion, it exists for others; and if in the form of sensibility it exists for itself;—by comparing, I say, the various groups of the animal kingdom, we shall find that they may be ranged in an ascending scale, of which the degrees are marked by a relative balance and proportion of the vital forces, and in which the ascent is determined by the evolution of life into Sensibility, and

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by the superordination of Sensibility, as the highest force and most essential form of living existence."

§ 35. In order to complete the account of the category of "Whole and Parts," and to render it as far as possible auxiliary to the acquirement by Generalization of empirical knowledge, I may observe that it is founded on the following Axiom:—"Wherever in any group of phenomena, sensible or psychical, we may affirm the existence of *Unity in Diversity*, we apprehend and bring it under the category of Whole and Parts." To this may be added the following Corollaries:—1. The greater the number and diversity of the Parts, the greater will be the Intensity of the Unity, and so the more perfect the Totality.—2. Whatever may be affirmed to connect, adapt, amalgamate, assimilate, or bring into relation with each other, under the conception which is common to all, any phenomena or group of phenomena that may be deemed Parts of a Whole, contributes to the Unity aimed at.

The Axiom in question cannot however be said to approve itself as a generalized educt of the faculty judging according to experience. It is indeed derived from, and disclosed by, a knowledge of the unique facts of spiritual self-consciousness, in the examination of which it will have to be vindicated, and will be verified. But the category of "Whole and Parts" may be

adopted, in the collection and moulding of our experience, as the form of the following more or less indispensable concipiencies :—

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1. *Formality*, the prevalence of some simple regular form, by which all the visible parts of an object are seen as One,—*e.g.*, in a Globe, an Egg, a Pyramid.

2. *Regularity*, the arrangement of similar or diverse parts, which are more or less discrete or separately discernible,—such as the facets of a crystal, or the sides and hexagonal shape of the wax-cell.

3. *Symmetry*, including the “regular” disposition of parts. This may be deemed a step higher, since it implies the prominence or superordination of some parts with the subordination of others,—*e.g.*, the petioles of flowers, the limbs of animals placed in pairs, the contrivances in architecture (dome, cupola, spire, wings, and the like) to break up into diverse forms, and thereby animate, the mass of the edifice.

4. *Unity by Grouping*,—that is, wherever the parts are too numerous and varied to comprehend them in any one simple plan, to form and associate them in lesser Wholes, and these again brought mediately into larger Wholes, under the common Unity which characterises the Whole and constitutes the Totality. This is especially the business of the Fine Arts: but we have plentiful illustrations of this mode of combination in the various genera, families, orders, and

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other modes of grouping the animal, vegetable, and mineral kingdoms.

5. *Proportion*,—in greek *συμμετρία*:—but the english “symmetry” may be distinguished from “proportion,” in that the former relates to the *disposition* of parts and the latter rather to their relative *quantity*; though I do not aver that the distinction has been recognised. I would further distinguish two sorts of proportion, namely, Sensible and Dynamic. Of the first, perhaps the best definition would be:—“Measurable fitness of the parts (in space or time) in relation to each other and to the Whole, of which they are the components, and with especial reference to the form of the total design.” This would apply to objects of nature, such as the forms of animals and plants: and to objects of fine art, such as the Orders of architecture, and the forms represented by drawing or sculpture;—though it must be confessed that a rule or canon has not hitherto been satisfactorily established. And we may add musical composition, based as it is on a peculiar science of proportion. On the other hand we might render Disproportion intelligible by what is called “Caricature,” which consists in exaggerating peculiarities or particularities which disturb the balance and harmony of the total effect.

But I have said there is also what may be called “Dynamic Proportion,” by which I mean a relation of the comparative intensity of forces,

such as the relative balance of the centripetal and centrifugal forces. The conception of proportion enters largely into the determination of scales of degrees applied to the measurement of the varying intensity of forces; but it will be found that the measurableness of degrees of intensity is only possible where we have been enabled to represent them by quantitative equivalents of motion in space. It may be observed, however, that there is always implied a latent reference to Quantity, even under circumstances in which no rule of mensuration has been, or can be, established; for how shall we estimate by measure the various quanta or degrees of benevolence, patriotism, heroism, and the like psychological qualities? And I say this without metaphor, for the comparative value cannot be dispensed with in our judgements concerning those qualities.

Finally we may say, that, wherever there is adequate evidence that there is such quantitative relation of the parts of any group or assemblage of phenomena—by adaptation, fitness, subordination, co-ordination, and conspiracy—as shall be in congruity with some end proposed, or with some conception which shall give an intelligible unity to all the components, we may assign to such assemblage that character of diversity in unity, which we call a Whole and its Parts.

6. *Unity by Series* is that in which the facts in any assemblage of phenomena may be

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so arranged, or present themselves so arranged, as to constitute *a regular and continuous succession of steps or parts* combined to a totality. The lowest form in which the conception meets us is the repetition of similar beats in succession, as on a drum: and in the animal kingdom the Annelids are those animals, which leave on us the least impression of organic wholes. But as a step higher in the scale of serial unity, we may notice *Rhythm*; of which we need say no more here than that the fundamental conception of the same is the repetition of successive beats of sound or motion at regular intervals in cadences of equal duration, by which equal metre we measure the time, or divide it into aliquot parts. With this may be combined an almost endless variety; and so the melody which we call a *Tune* is a repetition of a regular succession of varied notes. And it may be noticed that when a Tune is played or sung we have the additional notion of a *Cyclical Series*. In this, as in many other instances, the completion of a Series is certified by the evidence of a Cycle—that is, when the series terminates where it began, and recommencing passes through the same steps in the same consecutive order, so that the present recalls the past and anticipates the future, and thereby combines the diverse parts to a whole or unity.

But we may say:—Any series of events, the succession of which is determined by some in-

telligible purpose, or the steps of which may be schematized and explained by some definite conception, is the safe indication of a diversity in unity, or of a Whole of Parts realized in nature. Thus, where there is sufficient ground for attributing to an assemblage of facts the character of *Progressive Development*,—whether we ascertain the transient but actual phases of the process of evolution, or contemplate them as results of the process retained as parts of the whole, we are entitled to assign to the process the character of diversity in unity, and to designate it a “Whole and its Parts.” No set of facts is better calculated to illustrate this position than the comparatively recent discoveries in *Embryology*. (See *Vital Dynamics*, p. 39, and Appendix to same on *Transcendental Anatomy*, p. 56.) A no less instructive example may be offered in the idea by the light of which the law of the *metamorphosis of plants* rose up before the mind of the poet Göthe. (Ibid. p. 26.) The law, however, generally accepted, that *in naturá non datur saltus* requires correction,—this namely,—that under the auspices of the Logos, or divine Reason, those links of the chain may disappear which are unimportant to the intelligibility of the idea contained in the total construction. It is not indeed necessary, as may be inferred from the preceding remarks, that every Series should be that of development or evolution, provided that the series

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consists of connected links in and to a Whole. The scale of a *Thermometer* is distinguished into degrees of expansion of quicksilver corresponding to the grades of temperature through which the quicksilver passes under the increase of Heat, say from Zero to the boiling point of water. So an *Alphabet* may be said to be a Series of the articulate sounds of a language, arranged as guttural, palatine, nasal and labial elements, together with their modifications;—and it thus forms a serial totality.

7. There is another heading to which I attach considerable importance, namely, *Final aim or Purpose*. For, notwithstanding what has been in many respects correctly objected to the doctrine of final purposes or causes, as tending to divert men's minds from *efficient causes* as the true objects of scientific inquiry, nevertheless there seems to be in many cases no possible substitute for this object in our study of nature,—for the object, namely, of determining as far as the inquiry permits, Why or for what purpose such or such an adaptation of parts, or such and such combination of parts to a whole, has been provided. In other words we search for proofs of *Design* in order to render certain assemblages of facts intelligible, and this where other sources of intelligibility fail us. That any Axiom which may guide us is founded on our rational nature, and is not generalized from experience, cannot be doubted; and this may be here taken for granted

if we consider that any and every will-act, legitimately entitled to the name, must have a definite aim and purpose, to which the means (as parts of a connected whole) are to be subordinated as the conditions of its achievement and success. And under this impression, I submit, as the guide to empirical knowledge, in this respect the following Axiom:—Wherever there are marks of *Design*, and evidence of the adaptation of means in order to a final purpose, as if proposed under the exercise of human intelligence, we legitimately assume, in aid of our empirical knowledge, the operance in nature of a similar intelligence in order to the completion of an organic whole, and of organic wholes, according to the category of diversity in unity, or of a Whole and its Parts.

A better comment on the Axiom cannot be offered than in the words of the celebrated Cuvier:—"Celui qui posséderait rationnellement les lois de l'économie organique pourrait refaire tout l'animal." Or when he says (*Anat. Comp.* Vol. I. p. 47), "Tout être organisé forme un ensemble, un système unique et clos, dont les parties se correspondent mutuellement, et concourent à la même action définitive par une action réciproque. Aucune de ses parties ne peut changer sans que les autres changent aussi; et par conséquent chacune d'elles, prise séparément, indique et donne toutes les autres." It would be vain to attempt any improvement of this lucid and suc-

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cint statement of what we have throughout aimed at expressing in our account of the category of the Whole and its Parts,—equally applicable as it is to every whole, whether in nature or art, in poetry, science, or in theology, as the aim which the philosophic student ought ever to have in view.

It is not necessary to recal the reader's attention to the subject of *classification* and *distribution* already discussed, though it might have furnished one of my present headings. But it would be a grave omission to pass over without notice that of which classification may be considered as a species, and which may in a certain sense be said to be the guiding light of the Understanding in comprehending to unity the wealth of particular knowledges of which experience consists—namely, *Method*.

8. *Method*. Any attempt, however, on my part to investigate the subject has been rendered superfluous by the masterly Essay on Method by S. T. Coleridge, beginning at the 4th ch. of vol. 3rd of "the Friend," to which the reader is referred as exhibiting a treatment at once popular and profound. And I shall content myself here with the following instructive quotations:—"The absence of method, which characterises the uneducated, is occasioned by an habitual submission of the understanding to mere events and images as such, and independent of any power in the mind to classify and appropriate

them. The general accompaniments of time and place are the only relations which persons of this class appear to regard in their statements. As this constitutes their leading feature, the contrary excellence must be referred to the contrary habit. Method, therefore, becomes natural to the mind which has been accustomed to contemplate not things only, or for their own sake alone, but likewise and chiefly the relations of things, either their relations to each other, or to the observer, or to the state and apprehension of the hearers. To enumerate and analyse these relations, with the conditions under which alone they are discoverable, is to teach the science of Method."

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After noticing the opposite faults of want of generalization and excess of generalization, and also that defect of generalization which "retains the outward form only,"—and having happily furnished illustrations from Shakspeare's plays, he says:—"Thus exuberance of mind, on the one hand, interferes with the forms of method; but sterility of mind, on the other, wanting the spring and impulse to mental action, is wholly destructive of method itself. For in attending too exclusively to the relations which the past or passing events and objects bear to general truth, and the moods of his own thought, the most intelligent man is sometimes in danger of overlooking that other relation, in which they are likewise to be

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placed to the apprehension and sympathies of his hearers. His discourse appears like soliloquy intermixed with dialogue. But the uneducated and unreflecting talker overlooks all mental relations, both logical and psychological; and consequently precludes all method which is not purely accidental. Hence the nearer the things and incidents in time and place, the more distant, disjointed and impertinent to each other, and to any common purpose, will they appear in his narration: and this from the want of a staple, or starting post, in the narrator himself; from the absence of the *leading thought*, which, borrowing a phrase from the nomenclature of legislation, I may not inaptly call the *initiative*. On the contrary, where the habit of method is present and effective, things the most remote and diverse, in time, place and outward circumstance, are brought into mental contiguity and succession, the more striking as the least expected.”—“Thus, as ‘the lunatic, the lover and the poet’ suggest each the other to Shakspeare’s Theseus, as soon as his thoughts present him the one form of which they are but varieties; so water and flame, the diamond, the charcoal, and the mantling champagne with its ebullient sparkles, are convoked and fraternized by the theory of the chemist.” And with regard to Shakspeare’s works, “we may define the excellence of their method as consisting in that just proportion, that union and inter-

penetration, of the *universal and particular*, which must pervade all works of decided genius and true science. For method implies a progressive transition, and it is the meaning of the word in the original language. The Greek *μέθοδος* is literally a way or path of transit. Thus we extol the Elements of Euclid, or Socrates' discourse with the slave in the Menon of Plato, as *methodical*,—a term, which no one who holds himself bound to think or speak correctly, would apply to the alphabetical order or arrangement of a common dictionary. But as without continuous transition there can be no method, so without a pre-conception there can be no transition with continuity. The term method therefore, otherwise than by abuse, cannot be applied to a mere dead arrangement, containing in itself no principle of progression."

It will be readily anticipated that the "principle of progression," the "mental initiative to all method," of which the author speaks, belongs no further to the faculty judging according to experience, but to the higher light within us, which (§ 1) we have called Reason, or in its narrower sense the Speculative Reason, as the source of First Principles. But for the consideration of such first principles or Ideas we shall find hereafter a more appropriate place and occasion.

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SECTION II. (*continued*).

Subsection D. *Induction.*

§ 36. The term “induction” does not mean merely the record of the results of Experience; but the process of inferring, of inducing upon our empirical knowledge, the apprehension and insight of the *Causes and Laws* which govern the universe, moral and physical.

§ 37. Thus in the *Induction of Causes and Laws** we may say:—Wherever the human mind attributes unity to a manifold of facts and phenomena, contemplates the connexion of each and all in relation to the same as necessary, regular, and invariable, and is thereby rendered capable of anticipating and predicting a constant order of succession, or of simultaneous co-operation, in their recurrence, it recognises a *Causative Law*.

§ 38. It will be manifest however that, before the human mind can have attained to such causative law or laws, it must have been prepared thereto by passing through various stages of toilsome inductive ascent. And it has been with this view that we have placed before the reader the inevitable conditions of acquiring empirical knowledge. Of those conditions we may again name specifically,—first, Space and Time, the inalienable *Forms of Sense*,—and,

* “Cause” is *law operative*, and “Law” is *cause regulative*. See Vital Dynamics, p. 15, and the example.

secondly, the essential *Forms of Conciency*, or Conceptual Moulds, of the Faculty judging according to Experience, from the constitution and exercise of which they are inseparable—namely, the three so-called categories of “Subject and Attribute,” “Cause and Effect,” “Whole and Parts.”

§ 39. We have seen how the indispensable business of naming, sorting, connecting, and arranging our empirical knowledges is committed to their charge, and how each category is employed in its respective work and special vocation. But in order to determine the conditions of the process of *Induction*, in specific *relation to the purposes of Science*, it will be necessary to take a comprehensive survey of the means, resources, and circumstances of Experience, which is to terminate not only in the highest generalizations of empirical knowledge, but in the direct aspect and beholding of the wisdom and power which framed the worlds, in those energetic acts, ideas or laws, which constitute the divine operance.* “He spake the word, and they were made; He commanded, and they were created. He hath made them fast for ever and ever: He hath given them a Law, which shall not be broken.” Psalm 148.

§ 40. It is hardly necessary to remind the reader that the first indispensable step in the acquirement of empirical knowledge is that of

* See Vital Dynamics, p. 19.

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Generalization, implying a correspondent act of Abstraction; by which processes we note the Like in the Different and the Different in the Like; and of which the results are registered in Generic Conceptions, and expressed in Propositions of more or less generality. Nor need I add that such *conceptions expressed in general propositions* must be in the “*forms*” prescribed by the constitution of the faculty judging according to experience, that is, in the forms of sensuous intuition, or of logical concipieny made and provided for its specific purpose.

§ 41. In addition, however, to what has been said in respect of these mental forms or moulds, which are part and parcel of our intellectual constitution, it may be desirable for the reader to consider briefly (as only is consistent with our purpose) some of the principal *Rules*, which have been laid down by the best authorities—and I would here mention the names of Sir J. Herschel, of Mr. J. S. Mill, and of Dr. Whewell—for successfully instituting investigations in behoof of *Inductive Science*.

§ 42. Meanwhile it may be observed that the scientific interest which attaches to inductive science, is mainly, if not altogether, centred in the diagnosis or discernment of Laws, at once causative and regulative:—that is, considered from the point of view of the understanding, the mind is engaged in ascertaining a constant relation of dependency between empirical facts,

so that any B shall not happen without the necessity of assigning some A as its cause, or antecedent condition. And, as the empiricist repudiates the notion of power or force, the term “antecedent condition” would be preferable in respect of empirical knowledge, as signifying that in the mind of the observer a certain fact B is invariably associated with another fact A as the indispensable condition of B. Doubtless, it may be justly objected that A so conceived carries with it no satisfactory explanation of its *connexion with*, and its *production of*, B; but it is true that these conceptions lie beyond the precincts of empirical knowledge. It may likewise be premised that the inquiry is set on foot by seeking to discover the antecedent condition of a given effect. That is, in the phenomena and their changes, which challenge our observation, we are led to ask—What are the causes, or conditions, which may account for, or explain, as their effects, the observed changes. Although, when a cause has been once satisfactorily ascertained, the corresponding inquiry is naturally suggested:—What are the different effects, which may be produced by, or be consequent upon, the same cause.

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§ 43. To return, however, to the promised exposition of the main Rules which may claim to be adequate exponents of a *Method of Inductive Science*;—it will be obvious that the first Rule will be that of noting in any case, which

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offers the inducement to the inquiry, or in all similar cases, *the constant and invariable association* of one fact or phenomenon with another, for the purpose of determining the *Dependency* of the one on the other in the relation here contemplated of cause and effect, or rather (as we have said in the empirical sense) of a condition and that which is conditional upon it. These relations have been also called Antecedent and Consequent; but without qualification such language would lead to error; for no one would think of considering in the constant sequence of day and night that the one is the cause or the effect of the other, the condition of the change being the diurnal revolution of our planet.

The instances, which establish the fact of the Dependency in question, may be termed *Affirmative*; and their constant recurrence and repetition are a continual *verification* of the relation assumed. Take among many examples which may be adduced in connexion with our daily life, the fact of the changes in *Water* (its freezing into a solid, its liquefaction, its boiling and conversion into steam) under the influence of increased heat, and its return through the same stages under the abstraction of heat; and the evidence of the dependency of the changes on Heat, as the cause or antecedent condition, is complete and satisfactory. In this however as in other cases, though the most casual observa-

tion is sufficient to test the genuineness of the facts: yet the scientific inquirer is called upon to determine the conditions of the changes more accurately. He ascertains that the relative increase or diminution of heat is as that marked by a Fahrenheit's thermometer at 32° for the freezing point, above which every increase of temperature is marked by a corresponding rise of the thermometer until having reached 212° , or the boiling point, it remains stationary and the boiling water begins to escape in steam. It will be seen that the phenomenal changes invite further investigation, and may set other inquiries on foot; but meanwhile that *Observation* has been sufficient to note the invariable fact of Heat as the antecedent condition of the changes in water. Moreover it will be found further that, should any doubt remain, the changes may be renewed at the pleasure of the inquirer, or that an *Experiment*, or Experiments, may be instituted, by which the fact in question may be *verified*, and the question finally set at rest. And wherever this is the case, and the circumstances permit the trial of the assumed cause by experiment, we have the additional and infallible test of the dependency of a change on a specific cause or condition, and of the existence of a causal relation.

§ 44. But as we may and do have affirmative instances which establish a dependency of one fact or phenomenon on another, so likewise we

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may have *Negative instances*, which are decisive evidence against any causal relation that may have been hastily taken for granted, though perhaps on the faith of many affirmative instances. It is not necessary to refer to the old adage, "*Sublatá causá tollitur effectus*," to be aware that in all cases if the cause be removed the effect cannot but cease, and that, if the effect continue after the removal of the influence of the supposed cause, a wrong cause must have been assigned. Ex. gr. If the question were: What is the cause or antecedent condition of the transmission of *Sound* to the organ of Hearing. The answer would be the *Air*:—and this would be adequately proved by the Negative instance, furnished by striking a bell in the exhausted receiver of an air-pump, and finding that no sound would be heard; and further that sound would be produced, and would be increased, in proportion to the admission of air.

In order to turn the distinction of affirmative and negative instances to the best account in tracing, from an empirical point of view, the relation of cause and effect, it will be necessary, not only to note the cases of the invariable sequence, or concomitancy, of two or more phenomena in any given assemblage of facts, but in addition to institute *a comparison* between the results of the presence and of the absence of any circumstance, which may be supposed to be the indication of the causal condition without

which the effect would not take place. In this we proceed as in other cases of generalization :— we abstract from the different circumstances, under which a remarkable phenomenon, or phenomenal change, or effect, occurs, whatever invariably recurs as its antecedent, and which therefore may be presumed to be its causal condition or the exponent of its Cause ; and we then are entitled to infer, that all like cases agree in the existence of the same dependency and warrant a like designation. Thus we may affirm that All cases of dangerous or fatal interruption to breathing, whether by hanging, drowning, or suffocation by noxious or unfit air, *depend* upon the absence of the principle necessary to aërate the blood.

But, wherever possible, such cases of agreement are to be contrasted with, and tested by, other cases of the like kind but under varied conditions, and we have to *compare the same set* of phenomena in two opposite relations, and to observe in what the difference of the effect or result consists under the presence and under the absence of any given “condition” supposed to be essential to the effect. It is obvious, namely that, Whatever material circumstance *can be* eliminated *is not* the causal condition ; whatever *cannot be* eliminated, without interrupting the effect, is the cause or at least one of the causes. We have then to examine, and if the trial on hand admit of experiment the requisite evidence

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is most easily obtained,—we have to examine *instances of Difference*, that is cases in which all other circumstances being alike, we may by varying the circumstances ascertain the effect of the abstraction of any alleged or supposed cause; and if by a decisive fact or by repeated trials we can reduce the possible conditions to a single one, that is one which if present is invariably attended by the effect, and which if abstracted is invariably attended by the absence of the effect, we may legitimately conclude it to be the exponent of the “causal condition.”

Thus, in investigating the *Cause of the deposit of Dew* (concerning which Dr. Wells’s induction may be studied) we observe under what circumstances dew is deposited, or collect the affirmative instances, and under what circumstances dew is not deposited, or collect the negative instances. That in which all the cases invariably agree, and which cannot be eliminated, is the causal condition. “It thus appears that the instances in which much dew is deposited, which are very various, agree in this, and so far as we are able to observe, in this only, that they either radiate heat rapidly or conduct it slowly: qualities between which there is no other circumstance of agreement, than that by virtue of either the body tends to lose heat from the surface more rapidly than it can be restored from within.” Mill’s Logic, vol. i. p. 495. Thus again, as we have seen, a bell struck in air rings audibly;

but when struck in the absence of air, namely in the exhausted receiver of an air pump, no sound is heard—the causal condition of the transmission of sound, that is the medium of air, having been removed. The single circumstance of the presence or absence of air justifies the inference of the dependency of the propagation of sound on air as the medium.

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I have said above, “we proceed in these as in other cases of *generalization*,” that is, we note the Like in the different, and the Different in the like:—in the first, that is in tracing the Like in the different, in respect of Causation, we have to note the like indications of Dependency under different circumstances:—in the latter, that is in tracing the Different in the like, we note the difference produced by the absence or abstraction of any supposed cause, all other circumstances being alike. Ex. No. 1. The Vertebrate animals agree in having a skeleton; but, under this common character of likeness, they differ remarkably in being hot- or cold-blooded.—Ex. No. 2. Cases of a bell sounding in air, and not sounding *in vacuo*, constitute the essential characters of Difference with Likeness in other respects.

§ 45. Any number of *affirmative instances* would of course *have no weight in establishing an absolute, or universal, affirmative proposition when opposed to any negative instance*, or instances:—thus, though all instances may have agreed in

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the invariable association of some fact as the causative condition of some change, as far as commensurate experience warrants the assumption, yet further investigation may produce irrefragable testimony to the contrary. We have a striking example of this in the case of the so-called *Acidifying Principle* assumed by Lavoisier. It had been found that a numerous class of bodies are distinguished by the character of Acids; and it was satisfactorily ascertained that various substances such as Sulphur, Nitrogen, Carbon, Arsenic would become Acids simply by their combination with Oxygen. The change admitted of the generalization that in all such cases—and the number was large—the acidity is invariably associated with the presence of Oxygen; and thus, as far as the examination of the facts studied by Lavoisier warranted the inference, he was justified in assuming that Oxygen is the cause, or should be mentally assigned as the precondition, of Acidity. Further researches in chemistry, however, raised up *negative instances*, and exposed the fallacy of his opinion. Most of the acids contain, indeed, oxygen as one of their elements: but, as Turner (Chemistry, p. 629) says—“Acids may and do exist which contain no trace of oxygen, nor does its presence necessarily give rise to acidity. The compounds of oxygen are frequently alkaline instead of acid; and in many instances are neither acid nor alkaline.” And thus it appears that there

are two classes of cases, which effectually negative the hypothesis of an universal cause of acidity, namely,—(1) that of acids that contain no trace of oxygen, and (2) that of compounds of oxygen which are not acids. And, adds Turner,—“The progress of science seems to justify the opinion that there is no body to which the term acidifying principle is strictly applicable.”

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It is evident indeed that we have no safe test of the *Dependency*, which the assignment of “cause and effect” implies and requires, but that the effect is invariably present or absent with the presence or absence of the assigned cause or causal precondition. What cannot be abstracted cannot be regarded otherwise than as cause or at least a concurrent cause; and thus in the question touching the cause of the transmission of *sound*, it is found that in the absence of air no sound is transmitted, and that in its presence sound is invariably produced. On the other hand, it may be certainly inferred that whatever can be eliminated from the “conditions” under which any change is produced, *cannot* be regarded as a causal condition of that change. As above stated, what *cannot be* eliminated *is* the cause; and whatever *can be* eliminated *is not* the cause. Of the latter no better illustration can be offered than the reform, which the art of prescribing remedies for disease has undergone by reducing the farrago of ingredients, adopted by older phy-

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sicians, to ingredients of undoubted efficacy. “It is only within a few years (says Dr. Paris, Pharmacologia, p. 41) that *Theriaca Andromachi*, in its ancient absurd form, has been dismissed from the British Pharmacopœia.” It consisted of seventy-two ingredients, and was, as Dr. Paris states, essentially a preparation of the extract of opium, of which every other ingredient might have been *eliminated* without impairing its medicinal virtue, and of which the curative cause consisted solely in the opium.

§ 46. The most satisfactory assurance of the reality of a causal condition is that derived from a *Crucial Experiment*,—that is, where the circumstances of the case permit the decision to be referred to a single issue, and the result furnishes the required proof. Such was the experimental evidence offered by Dr. Haighton that the *restoration of the function of a Nerve is dependent upon the regeneration of its tissue*. The division of a certain pair of Nerves, called Pneumo-gastric from their influence on the functions of breathing and digestion, deprives an animal of life:—but if these nerves be divided consecutively, and at such intervals as to allow time for union and reparation, death will not result from the twofold operation, for the nerve-function will apparently have been restored. It remained however a question, whether the nervous influence was transmitted through the uniting medium of the divided nerve, or found a substitute in other

channels for its current. Dr. H., after allowing time for the union of the divided nerves, made the second division on both sides at once, and the animal died, as it would have done had the nerves been in their original condition. And thus satisfactory proof was afforded that the nervous current had been transmitted, and transmitted only, through a portion of nerve which had been divided and regenerated.

§ 47. It is not, however, always within our power to submit a case of doubtful causation to the test of an Experiment, in which we can at pleasure determine the influence of the presence, or absence, of a supposed or reputed cause. In such cases we have no other help than the observation and comparison of such instances of invariable concomitancy as are furnished by nature. I take the following illustration from Mill's Logic, vol. i. p. 462: "Thus, if it be true that all animals which have a well-developed respiratory system, and therefore aërate the blood perfectly, agree in being warm-blooded, while those whose respiratory system is imperfect do not maintain a temperature much exceeding that of the surrounding medium, we may argue from this twofold experience, that the change which takes place in the blood by respiration is the cause of animal heat."

§ 48. The only proof of causal relation that can be deemed completely satisfactory is that in which the affirmative instances of dependency

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agree invariably in one circumstance or condition, and in one only; or in which the negative instances agree in nothing but the exclusion of the same. (See J. S. Mill, *op. cit.* p. 462.) But though, as Mill avers, it would be in vain to expect to obtain evidence so conclusive, yet we may approach, if we cannot reach what is here aimed at. For instance, making use of the example offered in § 44 as proof that Sound is not propagated except by a medium, and that the ordinary one is the atmospheric air, we may reason according to Mill's canon of the Method of Difference, p. 455;—If the Propagation of Sound occurs in air, and does not occur *in vacuo*, all other circumstances being the same, save the presence of air in the former instance,—the circumstance, in which alone the two instances differ, namely the presence of air, is the cause, or condition, of the propagation of Sound. And it may be added that the negative instances, in which *Sound is not propagated*, agree in nothing but the exclusion—not indeed of air only, but of a *medium* of which air is only a species:—so that the reasoning in respect of air being *the sole condition* would be invalid, and in this case further experience would be necessary.

§ 49. But our researches into the causal connexions of the phenomena of nature are not unfrequently baffled, or at any rate rendered difficult, by the presence and influence of causal conditions, which, modifying each other, may produce

a complex result, or obscure the apprehension of the principal causal relation. In considering these *Modifying Causes*, we may adopt the distinction of *Concurrent* and *Counteracting* conditions, though it may be difficult in many instances to determine to which class they may belong. "A familiar instance (of such modifying causes) is that of a body *kept in equilibrium* by two equal and contrary forces." "Again, a body solicited by two forces in directions making an angle with each other moves in the diagonal." See the observations by J. S. Mill, vol. i. p. 520. Such cases may be called either concurrent or counteracting according to the end aimed at; but that two forces, so applied as in the latter instance, may be concurrent can not but be admitted, when we know that this is the very case of the law under which the planetary bodies preserve their orbits. If however we look to the causal conditions of many of the phenomenal changes which are offered to our notice, it will not be difficult to discover that the effect of the essential cause is aided or interrupted by modifying influences. Thus says Turner, Chemistry, p. 172 :—"Of the conditions which are capable of *promoting* or *counteracting* the tendency of *chemical attraction* the following are the most important; cohesion, elasticity, quantity of matter, and gravity. To these may be added the agency of the imponderable." And of these he gives instructive examples. Look again to the facts of *Physiology*, and the

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instances are numberless in which the performance of the functions of the living body is heightened or depressed by the influence of collateral agencies. No better illustration can be given of the value of estimating the effect of counteracting causes than the conditions under which alone *Vaccination* can be successfully accomplished.

§ 50. J. S. Mill has devoted an interesting chapter of his work already cited to the "*Plurality of Causes and Intermixture of Effects.*"

On the first head he observes (loc. cit. p. 513) as follows:—"We must consider it (plurality of causes) as a case actually occurring in nature, and which as often as it does occur, our methods of induction ought to be capable of ascertaining and establishing. For this however there is required no peculiar method. When an effect is really producible by two or more causes, the process for detecting them is in no way different from that by which we discover single causes. They may (first) be discovered as separate sequences, by separate sets of instances. One set of observations or experiments shows that the sun is the cause of heat, another that friction is a source of it, another that percussion, another that electricity, another that chemical action is such a source. Or (secondly) the plurality may come to light in the course of collating a number of instances, when we attempt to find some circumstance in which they all agree, and fail in

doing so. We find it impossible to trace in all the cases, in which the effect is met with, any common circumstance. We find that we can eliminate *all* the antecedents; that no one of them is present in all the instances, no one of them indispensable to the effect. On closer scrutiny, however, it appears that, though no one is always present, one or other of several always is. If, on further analysis, we can detect in these any common element, we may be able to ascend from them to some one cause which is the really operative circumstance in them all. Thus it might, and perhaps will, be discovered that in the production of heat by friction, percussion, chemical action, &c., the ultimate source is one and the same. But if (as continually happens) we cannot take this ulterior step, the antecedents must be set down as distinct causes, each sufficient of itself to produce the effect."

In reference to his second head — that of "Intermixture of Effects," Mill says:—"We have now to consider according to what method these complex effects, compounded of the effects of many causes, are to be studied; how we are enabled to trace each effect to the concurrence of causes in which it originated, and ascertain the conditions of its recurrence, the circumstances in which it may be expected again to occur." Of this second head I cannot profess to give an intelligible abridgement, and must refer the reader to Mill's work, *loc. cit.* p. 524. But I

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may direct the attention of the student to the following results. Mill says, "The conditions of a phenomenon which arises from a composition of causes may be investigated either deductively or experimentally." And after rejecting altogether the experimental method, and showing its inefficiency by a lengthened illustration from medical science of the futile attempt to determine the *modus operandi* and curative properties of Mercury, he says there remains only the *Deductive Method*,—"that which considers the causes separately, and computes the effect from the balance of the different tendencies which produce it: in short the deductive, or *à priori* method." P. 533. To this method of investigation he would assign the inquiries in physiology, politics and history, in which, he says, "Plurality of causes exists in almost boundless excess, and the Effects are, for the most part, inextricably interwoven with one another." And he adds (p. 532) "The vulgar notion that the safe methods on political subjects are those of Baconian induction, that the true guide is not general reasoning but specific experience, will one day be quoted as among the most unequivocal marks of a low state of the speculative faculties in any age in which it is accredited." *

* "Induction," in the ordinary sense of the term, means essentially no more than Generalization applied to the investigation of Causes, or of the unconditional Dependency of phenomena on each other as far as can be ascertained by empirical observation:—it means the collection of *Instances of any like dependency* under a general head, or generic term

The Deductive Method, he goes on to explain, consists of three operations: the first, one of direct induction; the second, one of ratiocination; and the third, one of verification. "The problem of the Deductive Method is, to find the law of an effect, from the laws of the different tendencies

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designating a class, so that the fact of the dependency in question may be expressed in a universal affirmative proposition. Ex. "Whatever falls gravitates, i.e. obeys the law of gravitation." But I venture here to affirm, that "Induction" in its proper sense signifies, not the empirical colligation of the uniform sequences of certain phenomena, but the process prescribed for the establishment of some universal law of the causes operative in nature,—not merely the work of the human mind in such inquiries, but the investigation, and haply the discovery, of the laws impressed on nature by its Creator.

"Deduction," on the other hand, consists in the subsumption of any fresh instance of dependency under the law previously established and expressed in its appropriate proposition. We deduce from the proposition, as a major premiss, that a given case is one, which may be legitimately included in the Rule or Maxim, which it expresses. And thus we may *deduce* directly from the above proposition that bodies in falling, either from want of support or loss of equilibrium, obey the law of equilibrium, or indirectly that the rise in the barometer, or the paradox of a body rolling up an acclivity, is also a case of the law of gravitation. But it may be properly asked, What is the *proof* of the proposition, that whatever falls obeys the law of gravitation? For though used as a major premiss it is by no means self-evident, and therefore requires proof. We have elsewhere seen that the proof demanded requires some such *self-evident premiss* as "Whatever invariably occurs is a law of nature." The *minor* then would be some such as "Obedience to the law of gravitation in falling bodies is what invariably occurs." Here the minor would require the evidence of observation and experiment, i.e. the *induction of instances* in support of the truth affirmed. And then we legitimately conclude, or deduce from the major premiss that "Obedience to the law of gravitation in falling bodies is a law of Nature."

It will be seen then, by this example, that, for the completion of the Proof required for the establishment of a Law of nature, we have to adopt both deductive and inductive reasoning—*deductive*, in as far as we subsume the case under an established major premiss; *inductive*, in as far as we establish the minor premiss by the inductive generalization of the facts at issue.

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of which it is the joint result. The first requisite, therefore, is to know" (by Induction) "the laws of those tendencies; the law of each of the concurrent causes; and this supposes a previous process of observation or experiment upon each cause separately; or else a previous deduction, which must also depend for its ultimate premisses upon observation or experiment. Thus if the subject be social, or historical, phenomena, the premisses of the Deductive Method must be the laws of the causes which determine the class of phenomena; and those causes are human actions, together with the general outward circumstances under the dominion of which mankind are placed and which constitute man's position in the world."

"To ascertain, then, the laws of each separate cause which takes a share in producing the effect is the first desideratum of the Deductive Method. . . . When the laws of the causes have been ascertained, and the first stage of the great logical operation now under discussion satisfactorily accomplished, the second part follows, that of determining from the laws of the causes, what effect any given combination of those causes will produce. This is a process of calculation, in the wider sense of the term; and very often involves processes of calculation in the narrowest sense. It is a ratiocination; and when our knowledge of the causes is so perfect, as to extend the exact numerical laws which they ob-

serve in producing their effects, the ratiocination may reckon among its premisses the theorems of the science of number, in the whole immense extent of that science. Not only are the most advanced truths of mathematics often required to enable us to compute an effect, the numerical law of which we already know; but, even by the aid of those most advanced truths, we can go but a little way. In so simple a case as the common problem of three bodies gravitating towards one another, with a force directly as their mass and inversely as the square of the distance, all the resources of the calculating have not hitherto sufficed to obtain any general solution but an approximate one. In a case a little more complete, but still one of the simplest which arise in practice, that of the motion of a projectile, the causes which affect the velocity and range (for example) of a cannon-ball may be all known and estimated; the force of the gunpowder, the angle of elevation, the density of the air, the strength and direction of the wind; but it is one of the most difficult of mathematical problems to combine all these, so as to determine the effect resulting from their collective action.

“Besides the theorems of number, those of geometry also come in as premisses, where the effects take place in space, and involve motion and extension, as in mechanics, optics, acoustics, astronomy. But when the complication increases, and the effects are under the influence of so many

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and such shifting causes as to give no room either for fixed numbers, or for straight lines and regular curves, (as in the case of physiological, to say nothing of mental and social phenomena,) the laws of number and extension are applicable, if at all only on that large scale on which precision of detail becomes unimportant; and although these laws play a conspicuous part in the most striking examples of the investigation of nature by the Deductive Method, as for example in the Newtonian theory of the celestial motions, they are by no means an indispensable part of every such process. All that is essential in it is reasoning from a general law to a particular case, that is, determining by means of two particular circumstances of that case what result is required in that instance to fulfil the law.

“Thus in the Torricellian experiment, if the fact that air has weight had been previously known, it would have been easy without any numerical data, to deduce from the general law of equilibrium, that the mercury would stand in the tube at such a height that the column of mercury would exactly balance a column of the atmosphere of equal diameter, because otherwise equilibrium would not exist.

“By such ratiocinations from the separate laws of the causes, we may, to a certain extent, succeed in answering either of the following questions: Given a certain combination of causes,

what effect will follow? And, what combination of causes, if it existed, would produce a given effect? In the one case, we determine the effect to be expected in any complete circumstances of which the different elements are known; in the other case we learn, according to what law—under what antecedent conditions—a given complex effect will occur.”

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In the above long quotation there are two parts to which I would direct particular attention;—first, the account which Mill gives of the aid to be derived from Mathematics; and, secondly, the account which he gives of “all that is essential” in the deductive method.

“But it may be asked,” he proceeds, “are not the same arguments by which the methods of direct observation and experiment were set aside as illusory when applied to the laws of complex phenomena, applicable with equal force against the Method of Deduction?” These objections, he admits, would be unanswerable, were there no test by which we may judge whether an error had been committed or not: and such a test he affirms to exist, and its application forms under the name of *Verification*, the third essential component of the Deductive Method. “To warrant reliance upon the general conclusions arrived at by deduction, these conclusions must be found, on a careful comparison, to accord with the results of direct observation wherever it can be had To the deductive method thus charac-

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terised the human mind is indebted for its most glorious triumphs in the investigation of nature. To it we owe all the theories by which vast and complicated phenomena are embraced under a few simple laws, which, considered as the laws of those great phenomena, could never have been detected by their direct study. We may form some conception of what the method has done for us in the case of the celestial motions." P. 546.

I am tempted to add to the above an extract or two from Mill's chapter on "The Explanation of Laws of Nature." "An individual fact is said to be explained by pointing out its cause, that is, by stating the law or laws of causation, of which its production is an instance." At p. 558 he says, "There are three modes of explaining laws of causation. First, when the law of an effect of combined causes is resolved into the separate laws of the causes together with the fact of their combination. Secondly, when the law which connects any two links, not proximate, in a chain of causation, is resolved into the laws, which connect each with the intermediate links.* Both of these are cases of resolving one law into two or more; in the third, two or more are resolved into one, when after the law has been shown to hold good in several different classes of

* Compare Herschel, Nat. Phil. p. 88. on "the analysis of complex phenomena":—and, on the subject of this paragraph generally, the 7th Chap. of the same work, p. 190.

cases, we decide that what is true in each of these classes of cases, is true under some more general supposition, consisting of what all those classes of cases have in common."

The last or third mode, to which only I desire particular attention, he thus describes, p. 555 ;— "The third mode is the *subsumption* (as it has been called) of one law under another; or (what comes to the same thing) the gathering up of several laws into one more general law which includes them all. The most splendid example of this operation was, when terrestrial gravity and the central force of the solar system were brought together under the general law of gravitation." (See the example detailed, p. 556, with the observations thereon.)

In conclusion, I may observe on Mill's views above quoted, that although it has been generally admitted that the process of gathering up the results of experience is at once *inductive* and *deductive*, the testimony of so decided an empiricist to the pre-eminent value of *Deduction* is worthy of all note. I do not indeed take for granted that he would concede to me what I have claimed for the Reason as speculative philosophy in universalizing human knowledge. But if, as is undoubtedly the case, empirical facts are to be treated "inductively," yet, for the interpretation of the generalizations arising therefrom (or, in Bacon's phrase, in order that man may become *interpres naturæ*) we have to

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appeal to first principles which are part and parcel of our rational nature. Above all this appeal will be obligatory, when we have to consider the laws of causation which affect the moral agency of man.

I might begin another paragraph with the heading "Successive Generalization." But as this subject has been anticipated above in the account of the "*Subsumption* of one law under another," I pass it by with one remark. I nowise subscribe to the statement, advanced by modern natural philosophers, that the inductive process which Lord Bacon recommends consists entirely of "generalizations, commencing with the most circumstantially stated particulars, and carried up to universal laws and axioms, which comprehend in their statements every subordinate degree of generality;"—and thus that a *law* is only a *generalization* from the facts and phenomena of sensible experience, a mere result of, and *belonging to, the human understanding*. My reasons for protesting against this doctrine will be found at p. 11, *Vital Dynamics*.

§ 51. It is now high time to turn our attention to the aid which the process of induction derives from mathematical science in determining the laws of *Quantity*;—for according to Bacon, "*Optime cedit inquisitio naturalis, quando physicum terminatur in mathematico.*" I cannot however better bring the subject before the mind of the reader than by a few quotations from

Herschel's Nat. Phil. Thus at p. 122 he says :
 —“In all cases which admit of numeration or measurement, it is of the utmost consequence to obtain precise numerical statements, whether in the measure of Time, Space, or Quantity of any kind.”—“It is the very soul of science; and its attainment affords the only criterion, or at least the best, of the truth of theories, and the correctness of experiments.”—“Chemistry is in the most pre-eminent degree a science of quantity: and to enumerate the discoveries which have arisen in it from the mere determination of weights and measures, would be nearly to give a synopsis of this branch of knowledge. We need only mention the law of definite proportions, which fixes the composition of every body in nature in determinate proportionate weights of its ingredients.” Compare Whewell on Lavoisier, Induct. Phil. vol. i. p. 398. Again Herschel, op. cit. p. 123. “Indeed it is a character of all the higher laws of nature to assume the form of precise quantitative statement.” Nor shall we wonder that man has acquired insight into nature, in proportion as he has been enabled to reduce her laws to distinct quantitative statements, and has brought them within the mental constructions of mathematical science, if as in the instance before us, “the observed relations among the data of physics show them to be quantities not arbitrarily assumed, but depending on laws and causes which they may be the means of

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disclosing.” Need we remind the reader of the speculations of the Pythagorean school, or of the sublime saying, *Numero, pondere et mensurâ generantur cœli et terra?* Vital Dynamics, p. 22. “Thus (as Herschel says, loc. cit.) the law of *Gravitation*, the most universal truth at which the human reason has yet arrived, expresses not merely the general fact of the mutual attraction of all matter; not merely the vague statement that its influence decreases as the distance increases; but the exact numerical rate at which that decrease takes place; so that, when its amount is known at any one distance, it may be calculated exactly for any other. Thus too the laws of *crystallography*, which limit the forms assumed by natural substances, when left to their own inherent powers of aggregation, to precise geometrical figures, with fixed angles and proportions, have the same essential character of strict mathematical expression, without which no exact particular conclusions could ever be drawn from them.”

In speaking of the verification of an induction of facts, Herschel, Op. cit. p. 168, says, “In the verification of a law, whose expression is *quantitative*, not only must its generality be established by the trial of it in as various circumstances as possible, but every such trial must be one of precise measurement.” See the illustrations, *ibid.* And I need not add how much such trials, conducted with all the precision of mathematical

science, must contribute to the exactness of our knowledge of the facts submitted to the inductive process and to the accuracy of the induction itself.

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But if the verification of empirical laws is greatly aided by the exact methods of mathematical science, and by their expression as laws of quantity, it will be found no less that the *Deductive Method* is armed thereby with powers which render it a most effectual instrument for enlarging our sensible experience. When laws of nature of subordinate generality have been resolved into some universal law, or when the steps of a laborious inductive ascent have been happily anticipated by some unpremeditated discovery, it will be found that a host of minor laws, which had been obtained only by toilsome inductive processes, may now be satisfactorily deduced by *à priori* reasoning from the fundamental law, of which they are at once the consequences and proofs;—a result, which would be inconceivable, unless grounded on *quantitative conditions*, and calculable under the constant relations which they supply. Thus the great laws of the planetary motions, announced by Kepler, were the results of inconceivable labour of calculation and comparison; but, as Herschel (Op. cit. p. 179) says, “they amply repaid the labour bestowed on them by affording afterwards the most conclusive and unanswerable proofs of the Newtonian system;”—and it may be added,

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that, according to its indispensable requirements, the laws of Kepler were found to be rigorously *deducible* from the law of gravity established by Newton. But the conditions, under which Newton established the law, were strictly *quantitative*; and thus he was enabled "to show all the celestial motions known in his time to be consequences of the simple law, that every particle of matter attracts every other particle of matter in the universe with a force proportional to the product of their masses directly, and the square of their mutual distance inversely, and is itself attracted with an equal force." For the celestial motions explained by, and deduced from, the law of gravitation, see Herschel, *Op. cit.* p. 272.

"It is a remarkable and happy fact, (says Herschel further, *Op. cit.* p. 179) that the shortest and most direct of all inductions should be that which has led at once, and almost by a single step, to the highest of all natural laws,—we mean those of motion and force. Nothing can be more simple, precise, and general than the enunciation of these laws; and as we have once before observed, their application to particular facts in the descending or *deductive method is limited by nothing but the limited extent of our mathematics*. It would seem, then, that dynamical science were taken thenceforward out of the pale of induction, and transformed into a matter of absolute *à priori* reasoning; and so it would be were our mathematics perfect and

all the *data* known." Compare J. S. Mill on the same subject. Op. cit. vol. i. p. 541. But, it may be added, that, as the laws of quantity contain à priori all the possible cases which may be deduced from them, so they necessarily are calculated to draw attention to facts and consequences which might otherwise have escaped the investigation of physicists, or have been left to the casual and uncertain notice of observers in natural science.

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§ 52. It remains that we bring before the notice of the reader the *Method of Residues*, of which Herschel (Op. cit. p. 156) says,—“ It is by this process, in fact, that science in its present advanced state is chiefly promoted. Most of the phenomena which nature presents are very complicated; and when the effects of all known causes are estimated with exactness, and subducted, the residual facts are constantly appearing in the form of phenomena altogether new, and leading to the most important conclusions. For example: the return of the comet predicted by Professor Encke, a great many times in succession, and the general good agreement of its calculated with its observed place during any one of its periods of visibility, would lead us to say that its gravitation towards the sun and planets is the sole and sufficient cause of its orbital motion: but when the effect of this cause is strictly calculated and subducted from the observed motion, there is found to remain

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behind a *residual phenomenon*, which would otherwise never have been ascertained to exist, which is a small anticipation of the time of its reappearance, or a diminution of its periodic time, which cannot be accounted for by gravity, and whose cause is therefore to be inquired into. Such an anticipation would be caused by the resistance of a medium disseminated through the celestial regions; and as there are other good reasons for believing this to be a *vera causa*, it has therefore been ascribed to such a resistance." Other instructive examples will be found in the same part of the work cited, but which it is unnecessary to repeat here: and the reader may advantageously compare it with Mill on the same subject; vol. i. p. 504.

§ 53. Before quitting the subject of induction it will be incumbent on us to state with more clearness than has hitherto been done the *principle of the Inductive Logic*. This principle, in contradistinction to that of the logical Canon, has been generally described as an inference *à particulari ad universale*, and we may well ask, whether a principle so entirely at variance with logical reasoning can be admitted? And yet it would seem as if men, in generalizing the results of experience, and in proceeding from particular to general truths, were constantly and unavoidably engaged in such a process of reasoning; nay, that it is the process, as it seems, by which they arrive at the highest generalizations

of Science, and at the rules and maxims (regulæ maximæ) on which they rely for the guidance of their conduct in the ordinary affairs of life. We have then to explain these discrepancies, and to vindicate, or repudiate, the claims of inductive logic to the special principle of reasoning, said to be characterised by inferring from the particular to the universal.

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Now, although I conceive with Archbishop Whately that, in these cases of so called *inductio à particulari ad universale*, we do virtually conform to the logical canon by reasoning with a suppressed major premiss, yet I cannot agree with him in thinking that it is such a one as that which he proposes for proving that "All men are mortal;"—namely, "Whatever is true of John, Peter, Thomas, &c. is true of all mankind;"—I cannot agree with him, because it violates the fundamental law of reasoning, and has the manifest logical fault of concluding from a particular to an universal proposition. But it will be naturally and fairly asked—If we do conclude, as admitted above, from particular to universal propositions, and can only in such wise generalize our experience, how we can avoid the paralogism and escape the paradox? And in reply to this question, I venture to say, that admitting as true the above statement, the difficulty has yet to be solved. And I say this notwithstanding that Mr. Mill, after offering unanswerable objections to Whately's view, has

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himself attempted an explanation,—which, however, in my judgement, has not adequately, nor I think rightly, solved the logical problem.

The question is, What is the implied, or according to Whately the “suppressed” major premiss, which enables us to conclude legitimately that the particular facts, which we have gleaned and gathered from experience, may be affirmed “universally”—taking the term in its logical sense? And in supplying the answer, I will do so in the form of the above example stated in the proposition: “All men are mortal.” Now I venture to think that the major premiss, which is to “*prove*” this proposition, is not the hypothesis proposed by Mill of an “uniform course of nature,” even when verified, as he supposes it may be, by induction; but that it must refer to the conditions, under which we exercise and achieve experience, and might be expressed in some such terms as the following:—

Whatever has been the result of invariable experience may be regarded and anticipated as the uniform course of nature:

That all men are mortal has been the result of invariable experience:—therefore

That all men are mortal may be regarded and anticipated as the uniform course of nature.

If such be the correct statement of the form of reasoning virtually adopted, even where not recognised, it will be seen that the conclusion is

drawn from an universal major premiss to the particular case contained in the conclusion, in strict conformity with the rate of the logical canon which Mill affects to despise, whilst he admits the necessity of a major premiss.

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Meanwhile, however, it is quite true that a process of reasoning from the particular to the universal does take place in framing a syllogism of this nature ;—and in this sense, namely ; that the subject of the minor premiss includes the cases derived from experience, and the subsumption of these under the class designated by that subject must be accomplished by an inductive process of reasoning, that is, by generalizing every particular fact or case or seeing that they are rightly included in the class designated by the subject and rightly included in the predicate of the minor premiss. Thus in the above syllogism, that “All men are mortal” is affirmed to be “the result of invariable experience ;” and the particular fact is made universal by including it under the class of “the invariable results of experience,” because, in the major premiss we have established the warranty that “whatever has been the result of invariable experience may be assumed to be, or is unavoidably assumed to be, the uniform course of nature.”

Or the truth, at which we aim, might be thus expressed :—That the “subject” of the minor premiss contains the cases which are brought

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under the "subject" of the major premiss, and thereby included in the major term; that is, the case that "all men are mortal" is the "subject" of the minor premiss, and contains the cases of the mortality of each and every man as ascertained empirically:—but this collection of cases, in which the mortality of all men is affirmed,* is brought under the subject of the major premiss, as "the result of invariable experience;" it is thereby included in the major term, since "the results of invariable experience" may be regarded as the uniform course of nature:—and we conclude then *universally* that the empirical fact of men's mortality, being included in the class of "results of experience" is included in the class designated as "the uniform course of nature." But it is to be observed that the logical justification of the procedure implies that the subsumption of the particular cases derived from experience is effected by an inductive process of reasoning, that is by generalizing the particular facts under the predicate of the minor premiss, or in other words including

* With reference to the collection of cases, Wesley (Logic, p. 58) has the following note to "Induction." "The term 'Induction' is sometimes employed to designate the process of investigating and collecting facts; which is not a process of argument, but a *preparation for it*." I cannot however but consider, as I have stated it, that there is always a process of *reasoning* in so collecting facts that they may be brought under the class of facts of invariable experience; and in each and every particular case, that we necessarily *infer*, in conformity with a rule or major premiss that whatever phenomena are invariably associated are in the relation of dependency, called Cause and Effect.

them in the class “the results of invariable experience.”

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Thus, then, the minor premiss in all such syllogisms contains the collection of particular facts, which expresses, or ought to express, the unimpeachable results of empirical investigation, and affirms them to be “results of invariable experience.” And the conclusion founded thereon, in respect of such empirical facts, is *universal*;—supposing always that its validity is guaranteed by a legitimate induction, that the *particular facts* have been certified to be results of invariable experience. And it may be added that this induction *à particulari ad universale* is justified logically; but it is justified only by a major premiss, which affirms the indispensable conditions, under which the induction is made and the universal conclusion established.

Such, I apprehend, is the true account of *empirical logic*; and the major premiss above indicated, or one of the same significancy, is that which is implied, or expressed, though for obvious reasons of convenience usually suppressed. It will be observed, however, that in the minor premiss facts will have to be expressed, which are not so universally known or admitted as that “men are mortal;” though in this case, if the grounds of the affirmation needed statement, we might append to the subject of the minor premiss the requisite evidence—saying, for instance, “that men are mortal, as shown by the deaths of all

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preceding generations, of whom no one is left to testify to the indefinite prolongation of life, and by the daily recurrence of this common eventuality." This confirmation of a premiss by an incidental proposition is what logicians call an *Epichirema*, or a syllogism of which the premiss in question is the conclusion. Thus, in the instance before us, "All men are mortal" is the conclusion of the following syllogism:—"Whatever living creature is subject to death in all past and present generations is mortal: all men are so subject: therefore all men are mortal." But it will be at once apparent that in many, or indeed in most, cases of inductive generalization such an appendage or "pro-syllogism" will be absolutely requisite in order to bring before the mind of those whom it may concern (in consequence of their want of information or belief) the *Proofs* of the soundness of the conclusion, and as such the convincing evidence of the steps of the inductive process, by which the inquirer had arrived at the generalization or empirical law enunciated.

And this would bring us again to the "*Conditions*" or *Rules*, under which legitimate inductive generalization may be made, and empirical laws established. Such rules or conditions of experience have been, however, already sufficiently discussed in the preceding pages; and I have only here to remind the reader of the important distinction before made between inductive "gene-

ralizations," or "empirical laws," and what with exclusive propriety may be called the induction of laws of nature—laws, revealed by Reason and attesting the power and wisdom of the Creator. (Compare Vital Dynamics, p. 16.) "A law not only implies what is, and must be, the result of universal experience according to the essential constitution of the human mind, but that more excellent knowledge of an operance, which would be real and effective whether man contemplate its effects in the works of nature or not, and which is constitutive in nature."

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It would be an unnecessary occupation of the reader's time and attention to pursue the subject into further details;—though as an instructive exercise he may refer to the example before given of Dr. Wells's investigation of the production of Dew. (See § 44, and the fuller statement of the case in Mill's Logic, l. c.) I cannot but think that the reader will be convinced that in all cases of inductive reasoning the argument may be thrown into, and virtually consists of, a *Syllogism*; of which the major premiss states the condition or rule, under which the conclusion may be valid; of which the minor premiss is the statement of the particular fact or facts under consideration; and of which the conclusion is the proposition which raises the particulars into the generality, or universal law, contemplated in the problem at issue.

§ 54. We have now learnt that the process of

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gathering empirical knowledge, and of constituting thereby our Experience, is both *inductive* and *deductive*;—bearing in mind always, however, that such inductive process is for the purpose of “*inducing*” upon empirical knowledge the insight of the universal laws impressed by the Creator on the physical and moral universe;—that the first, or inductive generalization, is the work of the *subjective* mind, and consists of man’s thoughts (i. e. generic conceptions) of the agencies of the universe; but that the latter is the achievement of the *objective* mind, or that which is coincident with, and the operance of, the universal mind. And the reader will be pleased to recollect that we have vindicated the assumption of such objective mind by presenting the Idea of the *Reason* as the *Intelligence, which is at once human and divine*. We have indeed made a distinction between *Reason speculative* and *practical*; and, until we have investigated the moral nature of man, the reader cannot receive the full assurance that the assumption of such an intelligence is essentially true. But at the same time the character of the speculative Reason has been so enunciated as to bespeak acquiescence in its reality, and especially in the fact (partially at least demonstrated) that its truths cannot but be acknowledged as containing their own evidence. For what is self-evident must be true, and to demand a reason for reason would be absurd. Awaiting, however, the appropriate

occasion for the full exposition of the truths of Reason, it may be here observed that it is by means of the universal light of Reason that we are enabled to raise up *Axioms of Experience*, and to show that experience is built up on the foundation of truths of Reason, which attest their derivation by their self-evident nature. It has been, indeed, already justly claimed for the so-called *Categories*, or moulds of Experience, that they are original, inherent and indispensable furniture (κατασκευή) or equipment of the human mind by virtue of their being *Forms of Reason*. And now, consistently with the character assigned to them of being the “conditions” of Reasoning, when Reason is applied to gather empirical knowledge, and to raise it into the eternal truth of divine Reason, we have to embody them as Axioms expressed in universal propositions. And, in offering them, it may be affirmed that they are indispensable conditions, without which, expressed, or understood, or unconsciously acted upon, Experience would not be possible. Thus:—

1. Whatever phenomena, in facts or events, claim to be regarded as results of experience must be generalized under one or other of the categories or mental “conditions” of experience, namely Subject and Attribute, Cause and Effect, Whole and Parts.

2. Whatever phenomena are generalized under the head of *Subject and Attribute* must be con-

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ceived as Appearances (*φαινόμενα*) belonging to permanent and abiding "Substance," so named, which is considered as the Noumenon, and of which the appearances are the sensible manifestations.

3. Whatever phenomena are generalized, or have to be generalized, under the head of *Cause and Effect*, must be conceived as invariably associated in consequence of an unalterable condition of Dependency.

4. Whatever phenomena are generalized or have to be generalized under the head of *Whole and Parts* must be conceived as interdependent in relation to each other, and to constitute a totality by virtue of some conception which gives unity to all.

5. If we add to these the principal condition of experience, or the form of reasoning (i. e. syllogism) by which we conclude that the results of experience may be assumed to be laws of nature, namely: "whatever has been the result of invariable experience, and may have been infallibly predicted, must be assumed to be in conformity with the immutable laws of the universe:"—with this, I say, we may be said to have completed the list of the main Axioms, or self-evident truths, of experience. And I repeat that wherever phenomena are to be generalized (and generalized they must be in order to experience) they must, and can only, be brought into logical connexion under one, or other, or

all, of these essential conditions,—conditions, namely, of Reason in that form of working which has been called the enlightened Understanding.

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§ 55. It would appear then, as the final result of our investigation of the process of Induction, that, as far as the work of the Understanding is concerned, this process of collecting the materials of Experience, and of transmuting the impressions on the senses and the notices of changes in our inward state into the conscious realities of human Thought,—this Induction may be described as essentially “*Generalization*,” that is, as the conversion of the materials of experience into “*Generic Conceptions*” which may be defined in universal propositions. In such generalization we have, however, to distinguish from those, which are suggested only by the ordinary occasions of life, those which have a *scientific* aim and purpose, and require to be subjected to the rigorous methods which science implies and imposes. Of these methods we have attempted a summary in the preceding pages. There is, indeed, no *art of Discovery*, no method by the use of which scientific truths can be revealed: but every person engaged in the pursuit of science, whatever may be his qualifications and advantages mental or circumstantial, cannot with impunity transgress the appointed “conditions, under which alone knowledge can be won and truth achieved.” We demand, and the

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rational mind cannot be satisfied with less, that the facts, phenomena, and changes, which form the sphere of our sensible and psychical experience shall be rendered intelligible to, and rationally accounted for by, our mind. Compare Vital Dynamics, p. 9.*

Now if we inquire what may be the ordinary progress of scientific discovery, it will probably be found that the attention of the inquirer has been roused by some striking event, or perhaps casual occurrence, the effect of which has been aided by his pursuits, habits, and turn of mind. Induced thereby to analyse the phenomena and their change, he now proceeds, by abstracting what he deems unessential, to insulate and scrutinize the leading fact and to generalize it, i.e. bring it under some "generic conception" which may explain, or account for, the change in the phenomena which had prompted the investigation. Thus "the convulsions of a dead frog in the neighbourhood of an electric discharge, which originally drew Galvani's attention to the sub-

* I suspect, however, that in the foregoing account of Induction I have unwittingly and too easily adopted the language and modes of thought of the Empiricists, and have not sufficiently insisted upon the truth that the rational insight of empirical knowledge depends upon maintaining throughout the *spiritual* interpretation of the categories or concipienies;—that no just view of "Subject and Attribute" can be entertained without contemplating the "noumenon" as substance in the sense of supersensuous "Spirit,"—nor of "Cause and Effect," without regarding the true nature of the causative as Power rendered intelligible by "Will" as the operant and originant agency,—nor of a "Whole and its Parts," except by looking at the pervading Unity as antecedent and indwelling Spirit, beyond the cognizance of the empirical faculties.'

ject," led to "the knowledge of a general fact, that of the disturbance of electrical equilibrium by the mere contact of different bodies." (See Herschel, Nat. Ph., p. 336.) And the reader may there learn how vast an amount of scientific knowledge, and of our resources in explaining changes in nature, may be derived from the happy seizure of a leading or "general" fact.

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It is true that in many, perhaps the majority of, cases we must be content with far less insight into the agencies of nature than that which has accrued from Galvani's felicitous observation. We have to be satisfied with being able only to observe and record the invariable association of facts under their respective heads of generalization; and so, for the purposes of science, we adopt what Dr. Whewell has called a "Colligation of Facts," and proceed to establish "Laws of Phenomena," "Empirical Laws," or, as J. S. Mill prefers to name them, "Uniformities of Nature." But although instances so named, sorted and classed, fail to give us the requisite insight into the causative laws impressed on the universe by the power and wisdom of the Creator, yet these collections of instances (illustrating indeed the use which Bacon assigned them, though hardly justifying his proposal of accumulating and tabulating such) ever remain as nutritive materials ready to be taken up, digested, and organized into the living body of science.

But, as I have said above, the immediate

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question, which the observer, in whose mind an investigation has been started by some noticeable change, cannot fail to propose to himself when seeking to find the "generic conception," under which he may best secure his acquisition, is this:—"What will best account for, or explain, the change, as the effect of some cause which may be regarded as the universal agent of such changes?" This mental operation of referring a phenomenal change (as effect) to some supposed cause, is so unavoidable in the constitution of the human mind, that, as even the history of science will inform us, extravagant explanations have been more acceptable than none. Our observer then at once probably forms a notion, more or less satisfactory to his own mind, of the case before him, and at all events hazards a conception (i.e. generic conception) of the class to which he shall refer the phenomenal change which is the subject of his inquiry. Now I repeat that the process is inevitable; and if the conception entertained be considered as a preconception afterwards to be verified, the interests of truth are not likely to suffer. The mind of man is so constituted that, whether its conjecture be well or ill founded, it will, to the best of its powers, assign the cause or causes which may be supposed to explain, or account for, any remarkable change as its effect. The first attempt may be only a rude guess, as if it were said that hybernation is the cause of the

disappearance of swallows at the end of the summer; but when conjecture has been enlarged and corrected by more searching inquiry (though this nevertheless has failed in detecting any satisfactory cause or condition which may account for a phenomenal change in question) and especially where the observer is forearmed with scientific knowledge, the conjecture will be then converted into what is meant by an *Hypothesis* of the causative relation. The *Hypothesis* professedly does not amount to a certainty of the conditions assumed, but has such probability as a solution of the problem in question, that there are sufficient grounds for attempting its "Verification" by scientific investigation, or for retaining it until the further advancement of knowledge shall have enlarged the means of testing its truth. In any such case it would take the place of Bacon's "*prudens questio*" of a determinate problem, for the solution of which the course of nature is referred to as the only adequate test and guarantee: but in order to put the question to nature, and in order to appreciate the answer, it is necessary to know precisely what we mean to ask, and therefore that the preconception, or hypothetical solution, should have been strictly *defined*. It may be quite true, as has been urged, that, in order to exclude that logical legerdemain, against which the Baconian induction is the legitimate and acknowledged protest, *scientific Definition* should

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be the result, and not the preliminary, of cases tried in the courts of nature's laws. But it is, nevertheless, indispensable for the purpose of obtaining an intelligible verdict, that we should have brought the indictment into court, and should examine the witness under specific issues ; and that, in conformity with this object, we should have clearly stated and have accurately "defined" the question, which is to be tried and definitively adjudicated. Hence then it is necessary to put the hypothetical case in the form of an universal proposition ; recollecting at the same time that this proposition defines the conception of what we anticipate the thing itself may be, not the thing, or result, which is to be the truth recorded as the final acquisition of our experience.

In framing such Hypothesis, it is scarcely less than essential to limit the selection to a relation of Cause and Effect which is consonant with our experience of the operations of nature. "To such causes," says Herschel (Op. cit. p. 144) "Newton has applied the term *veræ causæ* ; that is, causes recognised as having a real existence in nature, and not being mere hypotheses or figments of the mind. To exemplify the distinction :—The phenomenon of shells found in rocks, at a great height above the sea has been attributed to several causes. By some it has been ascribed to a plastic virtue in the soil ; by some to fermentation ; by some to the influence of the celestial

bodies ; by some to the casual passage of pilgrims with their scallops ; by some to birds feeding on shell-fish ; and by all modern geologists, with one consent, to the life and death of real mollusca at the bottom of the sea, and a subsequent alteration of the relative level of the land and sea." Then, after dismissing all but the last, he proceeds :—"On the other hand, for a shell-fish dying at the bottom of the sea to leave his shell in the mud, where it becomes silted over and imbedded, happens daily ; and the elevation of the bottom of the sea to become dry land has really been witnessed so often, and on such a scale, as to qualify it for a *vera causa* available in sound philosophy." (See other examples, *ibid.*)

Herschel, in speaking of the advantages of Hypothesis, says, p. 196 :—"Hypotheses, with respect to theories, are what presumed proximate causes are with respect to particular inductions : they afford us motives for searching into analogies ; grounds of citation to bring before us all the cases which seem to bear upon them, for examination." I do not feel sure, in assenting to the encouragement which Herschel bestows on the use of hypotheses, that I understand whether he intends a distinction between hypothesis and theory, and if he does in what he makes the distinction to consist. (See his Chap. vii., and especially pp. 194—196.) It is quite foreign to my purposes and wishes, if indeed any criticism

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be called for, to introduce any controversial matter in this essay :—but not to leave the reader in doubt with regard to my opinions on the subject, I have to propose the following distinction :—*Hypothesis* is, as I have said, a preconception presumed to account for a particular change or event in the course of nature ; it ought to have a better assurance of truth in consequence of being founded on scientific experience than a mere conjecture ; but it is only prospective, anticipative, and substitutive till tested and verified. On the other hand, *Theory* is a generalization, or generic conception, of all previous subordinate generalizations of the same or a similar kind, and known as particular empirical laws or proximate causes ; so that, regarded from the higher generalization as particular cases of some more or less universal law, they may be deduced from this theoretically established law. (Compare this description with that of Herschel, l. c. p. 190.) Thus the vibration of a musical string may be regarded as the proximate cause of the sound it yields, and the conception of vibratory motion may be extended to all sounding bodies, and so the propagation of sound through the medium of the air gives rise to various laws of subordinate generality : but, notwithstanding the labours of Newton, the *Theory* of the propagation of Sound, and of vibratory and undulatory motions in general, is still so incomplete that “ phenomena are constantly presenting

themselves, which show how far we are from being able to deduce all the particulars, even in cases comparatively simple, by any direct reasoning from first principles." Herschel, p. 247.

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Hypothesis may be, and probably often is, the precursor of a theory. But when a sufficient theory has been inductively established, the hypothetical scaffolding may be removed, and the hypothesis, which had served its preparatory office, may be altogether dismissed, or ceases by being merged in the theory which it had contributed to establish.

On the other hand, Theory ought to be distinguished from "Law," when the latter term is used in its true and only appropriate sense, namely, as the immutable statute of the Creator. A *perfect* theory—though we have seen in the example cited above how difficult is its attainment, might be regarded as a Law contemplated *subjectively*, that is, as a product of the human mind and satisfying the conditions of human intelligence. For which we might adduce as the instance, the theory of Gravitation.* But the too generally imperfect nature of theories, arising from their human origin, is attested by the fact that not unfrequently two or more theories may be maintained. "Nothing is more common in

* Theory is indeed the product of the human mind, judging by experience; and though it may be potentiated, or raised into a Law, as in the case just cited of Universal Gravitation, it cannot be truly called "Law," until it is found to be coincident with *natura rerum* as the impress of the Author and Legislator of the order of nature.

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physics," says Herschel (Op. cit. p. 195) "than to find two, or even many *theories* maintained as to the origin of a natural phenomenon. For instance in the case of heat itself, one considers it as a really existing material fluid, of such exceeding subtlety as to penetrate all bodies, and even to be capable of combining with them chemically; while another regards it as nothing but a rapid vibratory or rotatory motion in the ultimate particles of the bodies heated, and produces a singularly ingenious train of mechanical reasoning to show that there is nothing contradictory to sound dynamical principles in such a doctrine. Thus again with light: one considers it as consisting in actual particles darted forth from luminous bodies, and acted upon in their progress by forces of extreme intensity residing in the substances on which they strike; another in the vibratory motion of the particles of luminous bodies, communicated to a peculiar subtle and highly elastic and ethereal medium, filling all space, and conveyed through it into our eyes, as sounds are to our ears, by the undulations of the air." I would venture to observe that these doctrines have more the character of "hypothesis" than of "theory;" though with some exceptions either may serve for a solution of the phenomenal problems concerned, or, perhaps I might say, for preserving uniformity of language in their description without supplying the causal connexions which may

be said to account for the facts. It is perhaps more probable that the agencies of light and the other *imponderabilia* await, for the explanation of their nature, a sounder philosophy than that of the physicists of the material school. The view that light consists of "physical atoms" has all the difficulties which inhere in the assumption of such atoms. (Comp. Vital Dynamics, preface.) And considered as mere vibratory motions or undulations, though they might be supposed to excite the sense of vision, they fail to explain the chemical properties of light, and present light under the conditions which might equally belong to darkness. The difficulties, connected with the so-called imponderable agents of nature, have been felt, though not surmounted, in finding a material *substratum* for Gravitation. And it may be asked, whether the solution of the *quæstio vexata* does not lie in the following postulate or unavoidable assumption,—that "material" can mean only that which is subject to the laws of space and time, while the only *substratum* (or noumenon) in nature is what we may call "Substance," that, namely, of which we derive the intelligibility from the primary and fundamental fact of our conscious spiritual being—the Will ? *

* Induction has three main objects, viz. :—

1. To find the right *attribute* for a *subject*;
2. To find the right *cause* for an *effect*.
3. To find the right *principle of the interdependence of the parts of a whole*, in which each part is distinguished from, or logically excludes, the

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To proceed:—It has been universally admitted that to frame those general and comprehensive views, which we name hypothesis

the others, while all are included in the principle of interdependence, which constitutes their totality. But we have here to determine the meaning of the term “right,” and it is clear that, if the above use of it is to be of any avail in the inductive process, it ought to be equivalent to *self-evidently true*. In order to satisfy this condition we have to find “Axioms” which may serve as major premisses for the three objects above specified, and may direct us to valid inferences, or legitimate conclusions, in each of the cases supplied by Categories of Experience. I propose then the following RULES, OR AXIOMS, OF INDUCTION.

1. *To find the right attribute of a subject.*

“Whatever predicate may be substituted for the subject of the same proposition, according to the established rule of definition, in accordance with the conditions of objective reality, (i. e. not depending upon any subjective and particular modes of apprehension of the observer)—may be inferred to be a right attribute.”

Thus if it were asked, what is the right or essential property of a circle? the question is readily answered by stating the usual definition: “A circle is a continuous curved line, of which all the points are equidistant from a point called the centre.” But if it be further inquired, what authorizes the definition and the reasoning which leads to it? then the foregoing rule may be adduced:—namely “a continuous curved line of which all the points are equidistant from a centre” may be substituted for “a circle,” in accordance with the conditions of objective truth; therefore “a continuous curved line of which all the points are equidistant from a centre” may be inferred to be “the right attribute.” Again it is proposed that “Man is rightly defined as a rational, sensuous, and emotional being.” We call in the aid of our rule as the major premiss, and we adduce as the minor “the properties *rational, sensuous and emotional* may be substituted for, or are equivalent to the subject *Man*; therefore “they are the right attributes.”

2. *To find the right cause of an effect.*

“Whatever, and what only, explains the *unconditional dependency* of any change in a succession of phenomenal facts, is or may be inferred to be a right cause.”

Under this rule or major premiss, the minor premiss might be, for instance, this:—“The attractive force of the moon, when exerted in the same line as that of the sun, explains the unconditional dependency of

or theory, physicists have with great advantage had recourse to the *Analogies* which may frequently be detected in the agencies of nature, and which may be regarded as useful aids or suggestions in following out to its completion a process of Induction. Now "*Analogy*" is said to exist whenever between things otherwise different there is any circumstance in which they agree or resemble each other; thus learning is said to *enlighten* the mind, because it is to the mind what *light* is to the eye, enabling it to discover things before hidden. And thus we use terms or words *analogically*,

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the highest tides as the effect of their combined forces of attraction:" That the combined attraction of the moon and sun does explain the high tides, requires indeed a deduction from the universal law of gravitation, which may be exhibited in a subsidiary syllogism; and it might be said that this epichirema would be the proof of the causal relation. But, though it might or would establish the particular instance, this "combined attraction" would not have been shown to be a case of the legitimate attribution of cause under the universal rule *à priori* for determining a right cause; and we supply what is wanting in the proof by the conclusion from the premisses above stated:—Therefore "the attractive force of the moon, when exerted in the same line as that of the sun, in explaining the highest tides, is or may be inferred to be the right cause of those tides."

3. *To find the right principle of the interdependence of the parts of a whole.*

"Whatever, in any assemblage of phenomenal facts of the same kind, determines what is common to all and distinctive in each as a collective whole of parts, assigns to it a right principle of interdependence as constitutive of Totality."

It will easily be seen that this rule is founded on the fundamental distinction of Genus and Species, and that its use is systematic classification under the logical conditions which have been already in the main explained and do not require here further exposition. (Compare Thomson, *Laws of Thought*, p. 132, p. 100.)

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namely, such as signify no resemblance in the things themselves, but some resemblance which we apprehend in the *Relations* under which we conceive them:—the *foot* of an animal is the lowest part, or that upon which it rests, and so is the “foot” of a mountain with relation to the mass, which rests upon the lowest part. But here we have to deal with *Reasoning* or *Inference by Analogy* in aid of Induction. And it will be found that a very striking affinity, or perhaps something more, exists between it and the principle of reasoning by which we form “generic conceptions,”—as regards, namely, the including in one genus or class all things, however different, that agree in any one attribute or property. And in this we find the principle of reasoning or of drawing an inference by analogy, of which the logical rule may be thus stated:—

“All resemblances between any two or more objects, or associations of phenomena or facts, otherwise different, that may be brought under one kind or generic conception, in respect of some material circumstance, warrant the inference that the resemblance, or resemblances, depend upon like conditions in both.”

Thus in respect of the relation of *Subject and Attributes*, or of a Thing and its Properties, if we found an animal with horns we might reasonably infer by analogy that it was a ruminant; because the resemblance may be brought

under a generic conception, which involves like conditions, namely, "all horned animals are ruminants." And in all cases we may say that whatever property, or properties are like in different subjects, under varying circumstances, they indicate so far a similar nature of the subjects;—and it may be added, the greater the number of like properties, the greater is the probability of the subjects being like to which they belong. It must be allowed indeed that analogy, as such, can never supply more than a certain amount of probability;—to obtain the requisite inductive certainty or assurance must be the result of appropriate tests of the question at issue, and hence it is of the utmost importance in the cause of truth not to push the arguments of analogy beyond their just limits, especially where more satisfactory evidence can be obtained. Another interesting illustration under the above head is furnished by Newton's celebrated anticipation that the diamond is combustible, grounded upon the fact of the very high refracting power of the diamond comparatively to its density; a peculiarity which had been observed to exist in combustible substances. And on similar grounds he conjectured that water, though not combustible, contained a combustible ingredient. This is perhaps one of the happiest instances on record of reasoning by analogy; and I can in no wise understand how J. S. Mill can call it

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“a guess,” when in the same sentence he asks whether the “*guess*” was in truth a farsighted “*anticipation of a Law*” afterwards to be discovered. (Logic, vol. ii. p. 99, footnote.)

So again reasoning by analogy is often of singular service as a pioneer in detecting the relation of Cause and Effect, such as we have described it in its empirical significancy. I have great pleasure in quoting here a passage from Herschel’s Nat. Ph., p. 149,—the greater, that it coincides with views which are strongly opposed to the crass empiricism of able, though misguided partizans. He says:—“Here then we see the great importance of possessing a stock of analogous instances or phenomena which class themselves with that under consideration, the explanation of one among which may naturally be expected to lead to that of all the rest. If the analogy of two phenomena be very close and striking, while at the same time the cause of one is very obvious, it becomes scarcely possible to refuse to admit the action of an analogous cause in the other, though not so obvious in itself. For instance, when we see a stone whirled round in a sling, describing a circular orbit round the hand, keeping the string stretched, and flying away the moment it breaks, we never hesitate to regard it as retained in its orbit by the tension of the string, that is, by a *force* directed to the centre; for we feel that we do really exert such a force. We

have here *the direct perception* of the cause. When therefore, we see a great body like the moon circulating round the earth and not flying off, we cannot help believing it to be prevented from so doing, not indeed by a material tie, but by that which operates in the other case through the intermedium of the string,—a FORCE directed constantly to the centre.” In connexion with this, see also the passage (Op. cit. p. 193) where he says that “the agents” (i.e. causes) “employed by nature to act on material structures are invisible, and only to be traced by the effects they produce.” The student’s attention is also especially directed to Herschel’s “observations on the framing of theories,” especially (at p. 197) paragraph 209 and the following ones; though their length forbids quotation.

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§ 56. I will take leave of my reader by a quotation from Vital Dynamics, p. 13 ;—“ Again, does the history of the grand discoveries of science offer any sufficient evidence that they were only the result of a laborious collection of facts and observations of particulars? If indeed that great master-piece of the generalizing faculty, the Ptolemaic System of Astronomy, still retained its authority, it might be held up as a triumphant proof of the success of the method ; but, alas ! ‘its cycles and epicycles, orb within orb,’ have vanished like a summer morning’s mist before the piercing glance of him, who, penetrating deeper than appearances, *solem*

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dicere falsum ausus est,—have vanished before a reason, which can correct experience, and has authority to annul the reports of the senses, and the *dicta* of the faculty of judging according to sense. ‘What could be apparently more unprofitable than the dry speculations of the ancient geometers on the properties of the conic sections, or than the dreams of Kepler, (as they would naturally appear to his contemporaries) about the numerical harmonies of the universe?’ Yet (says Sir John Herschel, from whom I quote) ‘these are the steps by which we have risen to a knowledge of the elliptic motions of the planets and the law of gravitation, with all its splendid theoretical consequences and its inestimable practical results.’ The same high authority tells us that ‘the law of definite proportions (in chemistry), after the laws of mechanics, perhaps the most important which the study of nature has disclosed, was announced at once by Mr. Dalton in its most general terms, without passing through subordinate stages of painful inductive ascent.’

“A dispassionate inquiry into the origin of the discoveries of science will convince us that, so far from being in general the offspring of a generalization from particulars, they oftener originate in observations apparently trivial and accidental, in occurrences sudden and unexpected, frequently in the pursuit of fanciful analogies, or in the trial and rejection of arbi-

trary hypotheses, and are the result of a mind excited to react upon its experience, unsatisfied with the hitherto adopted connexion of facts and their want of unity, and having its inventive and originative powers thereby roused to enlarge its apprehension beyond the perspective which its own mechanism implies : and hence the discovery of any great law of nature has uniformly the character of felicity, and of a revelation, as by a flash of divine light, of the legislative wisdom of the Creator.”

And without repeating all that I have there written of the nature of divine laws in contradistinction to the results of inductive generalization, let me here only bring again before the reader this part of its philosophical doctrine :—
“Man recognises in himself, as the privilege and need of a rational mind, the capability of enlarging his thoughts to the universe, infinite as the omnipresence of God, ‘upholding all things by the word of his power ;’ the capability of raising his mind to the Supreme, as the Absolute Will causative of all reality in the eternal plenitude of being. And it is in meditating on the conditions and cause of this capability, that man becomes conscious of an operance in and on his own mind, of the downshine of a light from above, which is the power of Living Truth, and which, in irradiating and actuating the human mind, becomes for it (reveals itself as)

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Subsect. D. Reason;—yea! which is the revelation of those divine acts, at once causative and intelligential, which man recognises as first principles or ultimate truths, *Ideas* for the human mind, and constitutive Laws in nature.”

PART SECOND.

OF FIRST PRINCIPLES IN PHILOSOPHY.

CHAPTER I.

INTRODUCTORY AND RECAPITULATORY.

§ 1. IN the former Part of this work the intellectual Forms of knowledge were exhibited and discriminated, as fully as the plan of a "brief exposition" permitted. And whilst the fundamental distinction of Reason and Understanding was insisted upon, the Speculative Reason was upheld as the proper organ of Philosophy. But we have now to show, and to aid the student in apprehending, that the work of philosophy is somewhat other and deeper than the attainment of speculative knowledge; and that the aim and business of the philosopher, who is in earnest in the pursuit of truth, is to construct a sound system of *Realism*, of which the principle is not only light but life.

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§ 2. It may be expected that every man, who as a rational being is interested in the proposed inquiry, will ask, "What is the end and aim of Philosophy?" And perhaps the most appropriate answer, among many that might be offered, is, that its object is to discover *First Principles*,

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or in other words *Ideas*, or primary Truths of Reason.

In any and every department of human knowledge we cannot be said to have a philosophical insight of the subject in question, until we have attained to the Principle from which all the facts may be deduced as dependent truths. We may have arrived at an orderly arrangement of correct generalizations derived from accurately observed facts; but philosophical insight is first reached, when the Law, Principle or primary Cause, has been satisfactorily established, so that we can anticipate and predict what will and must happen in all similar cases. "Intellectual unity is indeed supplied by Science; but science can be predicated only of any scheme of knowledge, connected as a chain of necessarily dependent truths, so that any link of the chain being given, any other may be deduced as a necessary consequence of the principle, which determines the relations of all, and which gives to its possessor the power of anticipating and predicting its results in any given cases. And if the essential character of science consists in the necessary connexion and dependency of the links in any scheme of knowledge, it will be equally evident that, in order to complete and perfect it as truth, the principle which serves as the staple to the chain must itself be established and vindicated. This, however, is the business of Philosophy;

the object of which is to investigate and determine first principles, and to bring them into the unity of the rational mind and of truth one and universal. Principles are the postulates of Science and the problems of philosophy." (Vital Dynamics, p. 8, note.)

§ 3. Thus, then, as before said, Philosophy in its eminent sense and highest significancy is the discovery and establishment of *First Principles* or *Ideas*,—Truths, which, deriving their character from the Reason, vindicate their claim to this primary rank by their intuitive self-evidence, certainty, necessity, and absolute and eternal immutability. Nor can such truths be estimated at less, if the Speculative Reason is, as we maintain it to be, that power and condition of Unity, by which we contemplate in the infinite manifold of the Universe, physical and moral, the One in All and All in One. This statement is not made in the expectation that sufficing grounds have been yet laid for its acceptance: but on one of the characters of such truths, namely "self-evidence," it may be desirable to say that it is not meant that they are at once, and at a first and superficial glance, intuitively apprehended as self-evident, but that they are ultimate truths, which may be traced to, and derived from, Reason as their source, and which have no higher proof nor evidence. They may be *demonstrated*, but they are not to be inferred, or logically proved; and as the mind is

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compelled to give its assent in recognising them, when apprehended, by a direct beholding of truth, the propositions, in which they are stated, may be said to express "immediate judgements." There will be abundant opportunity in the following pages to illustrate and establish the position advanced, especially in exhibiting Principles, which are Truths of Reason; but we may here, by way of example, remind the reader of the mathematical axiom that, "A whole must be greater than a part." It may be also observed that Reason arms us with a test of such truths; for it will be found that whenever we affirm the contrary of the proposition, in and by which they are stated, we contradict ourselves. The principle, here appealed to, is what has been called the "*Principium identitatis et contradictionis*;" for instance, "What is all black cannot be all white." Comp. Mansel.

§ 4. Having, at the commencement of the first part of this work, enunciated the proposition that "the aim and object of all philosophy is to attain to the insight of *First Principles* or *Ideas*—yea, to the insight of the Absolute First Principle, from which whatever is must be derived, and in which whatever is must have the intelligible ground of its Being;" (Part I. § 1)—and having also referred this work to the Speculative Reason;—I feel it scarcely less than a duty to my reader, before proceeding, to offer

to him some further explanations, that may aid his progress in reaching that highest vantage ground of speculative philosophy, from which he may be enabled to look back and comprehend in one view all the steps of toilsome ascent leading to the glorious pinnacle of ideal Truth. Now if the Reason be contemplated merely as “speculative,” that is, merely in its intelligential functions, and as the organ of philosophy, inclusively of science, then it is the light, but the light only, by which man apprehends and comprehends divine and eternal truths. But if, as the cause of truth urges us to do, we are to regard the Reason not only as Light, but as Life, not only as speculative intelligence, but as a living and inexhaustible source of reality, we must search for some deeper and more vital principle than intelligence—for some principle which shall at once enliven and enlighten.

What this living principle is, which, whilst it is itself enlightened, actuates and enlivens the intelligence that directs and guides it, will be made manifest by the investigation of the facts of our own consciousness, as that ultimate principle of our being which we call *Will*. But we have here to consider this principle, in connexion with the attainment of First Principles, with the attainment of insight of the Absolute First Principle, regarded as the source of all Principles and the fountain-head of Ideas ;

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—we have here to consider this principle of living Light, or Reason, not as it exists in each man, but as necessarily to be accounted for as existing universally in all men, and without which universal presence it could not be the one universal principle and power of Truth which we require as the postulate of spiritual philosophy. We shall, in short, have to vindicate as philosophical, the doctrine which is revealed by St. John:—"for, in truth, it is a statement of the Christian doctrine, that the Word, the *Logos*, by whom all things were made, is essential light and life to his creatures; —πάντα δι' αὐτοῦ ἐγένετο, καὶ χωρὶς αὐτοῦ ἐγένετο οὐδὲ ἓν ὃ γέγονεν. Ἐν αὐτῷ ζωὴ ἦν, καὶ ἡ ζωὴ ἦν τ' φῶς τῶν ἀνθρώπων." (John, ch. i. v. 3, 4.)

This sublime truth may be, cannot but be, and can only with adequate insight be, contemplated by man with the aid of the speculative Reason—the downshine of the true light, the φῶς τὸ ἀληθινόν, the light "which lighteth every man that cometh into the world." (Ibid. v. 9.) It is the business and duty of speculative philosophy to raise itself to the apprehension of this great truth, as the principle and well-head of all truths, and as that which gives the impress of unity to all mental contemplamina. But that which confers on them life and reality is the operance of the Divine Word; and this will be duly acknowledged, and then only, when we recognise philosophical

truth as the work of the divine Reason in and on the Soul. And, although we do not wish to anticipate what may be better left to its orderly development, we may add that the recognition will mainly depend on the moral and spiritual condition of the intelligent Will.

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As will be shown hereafter, God exists for us in as much, and in as far, as we are consciously impressed by His living presence, and willingly submit ourselves to His gracious aid and operation;—and the test and measure of the divine work is to be found in the growth and development of an enlightened *Conscience*, that is, the individual Will, enlightened and enlivened by the divine Reason, or by Him who is both Light and Life to His creatures.

§ 5. Whether in the progress of the argument I shall be able to convince my Reader of the soundness of my doctrine will much depend upon his spiritual tendencies; but I venture to affirm, in the fullest faith derived from patient meditation and investigation, that it is only in and by such a Principle or Idea that a *Method* or *System of Realism* in Philosophy can be established and secured;—a method, namely, by which our thoughts of things in the physical and moral universe become identified with those realities whereof they are only the reflections and representatives; and by which they may be traced to an ultimate ground which is at

once Supreme Intelligence and Absolute Power causative of all reality.

In support and illustration of this view, differing as it does from the generally accredited tenets of philosophical thought, I may here quote a passage (pp. 57 et seq.) from the appendix to my second Hunterian Oration, entitled "Mental Dynamics."

"If it were asked what are the grand difficulties, which have opposed themselves to the establishment of a sound philosophy, and to the building up of a speculative system upon the basis of Realism,—difficulties, implying doctrines so incompatible with the natural expectation, that philosophy is, or ought to be, the complement of common sense, as to deter men in general from the pursuit and to regard the study as a mere waste of time,—I think it would not be difficult to enumerate the main errors, which have deflected philosophy from the right course, and to point out the remedies for the aberrations of speculative philosophers.

"One of the greatest difficulties, in the way of a true philosophy and of a well-grounded system of Realism, is and has been the position, maintained by Hume and Kant, that we have no proper Self-consciousness or Knowledge of a Self, and that what we call Self-consciousness is the cognizance only of the mental presentations of that which we may infer indeed to be a one mind, but of which we have no knowledge

beyond its manifestations in the consciousness—its appearances or phænomena. In other words that consciousness is a looking-glass in which we may see ourselves reflected, but only as the images which the looking-glass presents; or that the conscious mind consists merely of a multiform flux of thoughts, of the supporter, substance, and inherent connection of which, we are utterly ignorant. Thus all reality of a mind or self, a substance or spirit, is at once destroyed, and the *soi-disant* philosopher is left to deal only with thoughts, with a representative shadow or image of the thinker himself, or of a mind which according to this view is beyond the limits of knowledge. To this difficulty I have endeavoured to supply a solution, which (whatever its success) may have at least the value of calling the attention of the student of philosophy to a problem worthy of the attention of all lovers of truth.

“A second and no less pernicious error is the view of the nature of Perception, which seems to beset all attempts to overbridge the apparent chasm between the mind of the percipient and outward things or objects, and which has pressed sorely on philosophy from the so-called Idealists to the present time;—the view, namely, that we do not perceive external objects, but that we are only cognizant of certain affections of our own being, sentient and conscious, of the causes of which we are ignorant; that what we call

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things and outward realities are really and truly only modifications of the percipient subject. And thus, as in the former instance the self was removed, so here the outward world vanishes into shadows, and in both cases the reality eludes our grasp.

“A third important defect, common to all schemes of philosophy, is the utter want of any living, organic principle, any source of reality causative of being. We are continually referred solely to the Intellect, and the method of philosophy dwindles into Logic and logical processes. Now the mere intellect, essential though it be in constituting Forms and Relations, contains in itself no life nor causativeness. This defect has been supplied, and perhaps only it may be said, by Coleridge in the fundamental principle of his philosophy, Will as deeper than, and inclusive of, Intellect.

“But the fourth grievous impediment to philosophy is the want of an adequate notion, and in too many instances the utter ignorance, of Reason, as contradistinguished in kind from the Understanding and merely logical faculties, as the peculiar gift to man constituting his rationality, as the Light or influx common to all men, manifesting itself in Ideas, or those principles in which the proper humanity essentially consists. Reason is the potentiating force, of which the spiritual or real man is the result. It is the idealizing power;—the power, instinct,

and inherent tendency of man to contemplate all his thoughts, feelings and strivings, in their perfection, integrity, unity, universality, totality, absoluteness. It is the immediate revelation to him of the spiritual image in which he was created, and towards which he cannot but acknowledge himself bound to strive:—it reveals to him law, moral and physical, and with their absolute necessity, the absolute principle of freedom, as identified therewith in the Supreme Will, the absolute cause of all reality.

“Fifthly and lastly, we have to deplore amongst the defects of philosophy, the sad forgetfulness of the *θεῖον*, of the divine Spirit in all and through all. That this arises from too exclusive attention to the senses and to the faculty judging according to sense, and to the interests arising out of them, can scarcely be doubted; and this defection from his spiritual nature can scarcely be otherwise than expected, so long as man remains the *ἄνθρωπος ψυχικός*. Something may likewise be attributed to the erroneous schemes of theology, which on the one hand confound God with the world, and end in pantheistic atheism, and which on the other separate God from the world, and by aiming at a pseudo-monotheism resolve themselves into a negative and lifeless abstract of spirituality, to which there is no human correspondency. But the main cause, I fear, must be attributed to the too prevalent want of reverence—the neglect, in

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the present day, of the sense of the superior, and the absence of the habit of seeking and contemplating in the higher that complement to our own inferiority, which a just appreciation of our manifold defects necessarily begets, together with feelings which are the very opposites to self-conceit, arrogance, and presumptuous ignorance.

“The rightly understood doctrine of the Logos will be found an effectual antidote against these mischievous consequences, and the sublime views of John and Paul will still guide us into all truth. And I may be, perhaps, permitted to say, without being suspected of derogating from the authority of the Catholic Church, that the doctrine of the Trinity found in the writings of those divinely gifted men, and implied throughout the Scriptures of the New Testament, only needs to be apprehended in its full and living import in order to claim its place as a truth of Reason. It is not here the place to carry out this all-important investigation:—but conceive the doctrine as affirming that the Deity must be contemplated in three Relations;—that these however are not mere Relations, but Realities;—not only Realities but the highest Realities;—and again that these are not dividuous entities, such as three individual men, but one and the self-same Spirit in distinctive self-hypostatic acts;—and you may then at least begin to acknowledge the value of a doctrine,

which preserves for us the idea of God in its integrity :—First as One, above and unfounded with nature and the world, as the safeguard against pantheism ;—Secondly, as the Divine Alterity, the divine principle in all, and through all, derivative being ; the Humanity, which worketh in all men ; as the effectual preventive against degrading anthropomorphism, and the misty and unintelligible fancies of abstract theism ;—Thirdly, as the divine Life, which in preserving the distinctness of the Relations unites and perpetuates them, as the necessary integration of the idea, and the corrective to the possibility of contemplating God other than as indivisible Unity.

“ But the extreme value and high importance of the doctrine of the Logos will be brought nearer to human interests and be made more apparent if we contemplate it as exhibiting to us the idea of the Humanity. The instincts of Reason never permit us to rest until we have evolved that perfect exemplar of man, which exhibits him as the child of God. We become conscious indeed of this high descent only under the clear conviction of the degradation which we have suffered, and in the conflict of the double nature which the natural and spiritual man presents : but as the doctrine above referred to gives us the assurance of our heavenly descent and birthright, so likewise it opens to us our high destination, and the conditions under which

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regenerate man may achieve his re-union with God. It sets before him at once His spiritual being, as the alone true reality, and as that standard according to which the worth of all things is to be judged: 'Be ye perfect even as your Father which is in heaven is perfect.' The education of the moral being and the development of the spiritual self, of which the end is Holiness, are brought before us as the one thing needful; and as the Logos is the power, and divine grace the condition, of effectuating this living change in fallen man, so we have to pray and strive to be made partakers of God's spirit that we may finally become regenerate in Christ, even in the image of God in which we were created. Hence the fundamental idea of Christianity is the salvation of the world by the Logos.* Christianity alone sets forth the full and clear doctrine of man as a fallen creature, and the power and means of his restoration—the key to history and the only safe foundation for individual life and conduct."

* "*Certum propriumque fidei catholice fundamentum Christus est.*"
 —Augustini Enchirid. § 5. Compare Nitsch *Christliche Lehre*, p. 125.

CHAPTER II.

THE WILL, AS THE ULTIMATE FACT OF SELF-
CONSCIOUSNESS.

§ 1. (PREFATORY.) The reader will, however, expect, and will be warranted in expecting, the fulfilment of the promise already given, that the “causative power” which has been invoked, shall, as far as the limits of this preparatory essay permit, be shown to possess a sufficient guarantee for its acceptance as a real principle, the nature and intelligibility of which is derived from the fundamental idea of the Will. Nay! I am willing to renew the promise, and to renew it in terms which shall show how essential I consider its fulfilment to be to the aim and purpose of the Spiritual Philosophy. Adopting, as the final aim and object of spiritual philosophy the discovery of a Principle which shall secure to it the reality of living Truth; and accepting as the *Postulate* (afterwards to be vindicated) that the required principle of the Unity of the Manifold of the Universe physical and moral, shall be ONE, of all reality the absolute cause, which, affirming and realizing itself as its own abiding and self-sufficing ground,

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utters and reveals itself in the infinite manifold of Being, entire in All, and entire in Each; adopting, I say, this as the indispensable postulate of philosophy, when contemplated in its utmost height, breadth, and depth,—I venture to affirm, with the fullest confidence of establishing its evidence, that the Principle sought for is WILL.

§ 2. Now, in order to enable the student who is earnest in the investigation of truth for its own sake, and who regards its possession as its own exceeding great reward,—in order, I say, to enable the student to scale this alleged, or supposed, inaccessible and transcendent height, I have to refer him to the *Facts of his own Consciousness*—sources of evidence, which are in every respect open to his strictest scrutiny, but in order to the due investigation of which, in behoof of philosophical conviction, there can be no substitute for the intellectual agent himself. And I now invite his attention to the nature and conditions of *Self-consciousness*.

In this work of Reflection on what is passing in his mind, and in reviewing his thoughts, feelings, and volitions, he will soon become aware that in any and every act of conscious reflection, he is under the necessity, in analyzing the process, of distinguishing in the Self two relations, namely, subject and object, or the subjective and objective relations. By the first, *id quod jacet sub*, is designated that which may be inferred

by the mind, but is recognised only in its acts and results;—by the latter, *id quod jacet ob*, or *quicquid obicitur menti*, are meant those mental presentations by which the subject knows its own states, and by which it is itself known or inferred. But no sooner will the self-investigator have thus distinguished the thinking mind from the thought which is the object of the mind's thinking, than he unavoidably identifies, and becomes aware that they are but relations of a somewhat which he is conscious is the Self.

§ 3. What then, he will ask, is the reality, which appears in his consciousness, now as subjective, now as objective, and which though either, or both, is yet one, namely the Self, or what each man calls *Myself*. He will surely put the question to himself: “Do we really know no more of our own Self, substance or being, than the thoughts, feelings and volitions, which are its products and recognised in their mental representations? Do we only know the Self or Soul in and by its conscious presentations or *psychical phænomena*?” Now I apprehend the very reverse of this will be apparent to the unprejudiced student, if he heedfully consider the nature of Self-consciousness as disclosed by the opposite yet correspondent relations subjective and objective. Take the following example: If I think of anything—say, for instance, that I am engaged mentally with the proposition

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that man is mortal;—or if I will anything, say that I determine to visit a sick neighbour;—or if I am affected in any particular way, say that I am pleasurablely affected by the sight of an old friend;—in all these instances the act of consciousness may be simply that of contemplating myself in the particular state or circumstance specified of thinking, willing, or feeling, and this objectively:—but in order to constitute it an act of self-consciousness, of subjective apprehension, I must be also distinctly conscious that it is I, who am the Subject, I must know that it is I, thinking, willing, feeling.

In order to solve this problem it is necessary to turn our attention to the *subjective relation*; for here, if anywhere, will be the hope of discovering the true nature of that relation, and of the reality which it may truly import. Now is there, we may ask, any principle or source of agency, which being removed I should neither think, will, nor feel, but which being assumed we find so essential, that it satisfactorily accounts for and explains the agency by which alone our thoughts, volitions, and feelings can be realized? This, I apprehend, may be answered, by naming *the Will* as the principle sought for?—if by “Will” we mean as we cannot but do, a self-determinant agency and the only source of originative power.

§ 4. It is true that the reality of the Will must be proved in and by every man as a fact

of his own self-consciousness;—and so primary is the fact that if we resolve it into anything else it ceases to be what we mean by Will. It may be admitted doubtless that in willing an act, or in any act of self-determination, I am, or may be, induced by a variety of *motives* or *impulses*;—my will may be moved;—but this does not exclude the power of origination, for the consent even to the outward inducement or stimulus still requires this unique act of self-determination in order to the energy requisite to the fulfilment of the deed. The actuation of the individual Will not only does not exclude self-determination, but implies it—implies, that though actuated, but actuated only because already self-operant, it is not compelled, or acting under a law of outward causation. That it is so, who shall doubt who is conscious of the power of origination? And if he can bring himself to the belief that he has not this consciousness, his acts will soon belie his belief. Compare *Mental Dynamics*, p. 54.

Without the Will any discussion of morals would be idle and useless; and hence it was that Kant, notwithstanding his speculative convictions, commences his ethical inquiries by assuming the human Will as the ground of man's liberty and responsibility, and as a necessary *postulate* of moral faith. It is easy to see that if we have no cognizance of a Self, other than in the changes which the self undergoes, we can

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have no knowledge of the operative cause of those changes, and the Will ceases to be a fact for us:—if we only know that the self is changed, and contemplated in a series of modifications which can be regarded only as “psychical phænomena,” we have no knowledge of the *subject* originant or of the *cause* of such phænomena:—and this must necessarily be the case, if the facts of consciousness only disclose to us the “myself” in its *objective* relation. But the facts of self-consciousness do disclose more than this;—they will be found by heedful scrutiny to reveal to us the *causative subject* also. Taking our former instance, the determination to visit a sick neighbour, I am conscious of the determination in myself, and that the act in question has been willed. But if I proceed to inquire, how that change has been wrought in myself, the only satisfactory explanation of the fact is that it is the result of an operance or agency in myself, and that of this operance of the self I am conscious as the *subject willing it*;—in causing the act I am conscious of being the cause of the same, and in this unique instance of “spiritual experience” I obtain a knowledge, otherwise wholly incapable of authentication, of the causative as Will, and of Will as the sole intelligible ground of causation. Meanwhile, in stating the result of our spiritual experience, the effect should be carefully distinguished from the cause producing it,—that which has been willed, from the

act of willing which preceded it, and which has been its antecedent condition. I may be conscious of Myself in both relations, subjective and objective; but the result of the act should be distinguished from the causative agency; so soon as the result becomes contemplated objectively, the originative or causative act acquires a new relation, and passes into the class of psychical *phænomena*. Thus, as I have said (Mental Dynamics, p. 52) “Macbeth nerves himself to the murder of the royal Duncan; he resolves, and in resolving he is conscious of the predetermination of his Will and of his being therein the author of the premeditated deed; but, so soon as it has become a resolve, he contemplates it objectively, as a mental presentation or *thought*:—in the first instance he knows himself as a noumenon, in the latter as a phænomenon.” In order to constitute a moral act I must be conscious of deliberating and resolving, that is, conscious of a causative act of Will, antecedent to the manifestation, and the precondition of the result;—in other words I must be cognizant of the Self as Will.

§ 5. “What a world of false philosophy is thus got rid of can only be appreciated by those who have been bewildered by the scepticism of Hume and Kant. It is indeed a fact of consciousness, a truth of the inward man, which can never be reached by those who wilfully exclude the ‘spiritual,’ and contemplate the inward

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world of thought as they do outward objects;—the outward husk can never exhibit to us the ‘spiritual,’ and if we regard the self only as an outward object, we can never penetrate into that which constitutes its essential and true being. It is indeed a unique fact of the consciousness, and one which each man must discover for himself; but, once seen, its light diffuses itself over the whole sphere of mind and nature, and the man, who has discovered this vital truth, comprehends at once the spiritual being and causative ground of all within and without him.

“In relation to *outward nature*, if we mean anything when we use the term ‘Substance,’ we mean surely that which cannot be apprehended by the senses;—it is that which stands under, is sub-posed, is only intelligible, and is the supporter of the phænomenal by which it is revealed to us. Take any outward fact or phænomenon of sensible experience—we note its form and changes; but we ask inevitably what has produced this complex being, and what preserves it ever the same amid its changing but regular phases? The only answer is, somewhat beyond the power of our cognizance by the senses, and we infer a somewhat deeper and beyond our sensible experience—call it Life, Spirit, Cause, or Law. Here we necessarily infer the causative and conservative principle. But whence do we derive the means of solving the problem? It is

by turning inward and reflecting on the facts of our own consciousness. Within ourselves we become cognizant of a causative, an originative, of a somewhat deeper and beyond that which is the object of our thoughts;—it is the Subject, the Will.”* PART II.
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§ 6. Let the student, then, attend to himself resolving, determining, willing;—he will surely admit that he is conscious of a somewhat deeper than the presentations which appear in his objective consciousness; he will know himself as originant and causative. He will have arrived also at the knowledge of Substance, of a Noumenon, and will confess that the only intelligible conception of Substance is Will or Spirit, and that he has obtained this knowledge in and by an act of self-consciousness. But, in this primal act of consciousness he will also have learnt that we are cognizant of our *Esse*, call it Will, Subject, Spirit, Substance, or (to use a phrase of the Kantian philosophy) *das Ding an sich*. And he will find no less that in this act we contemplate the *identity of Being and Knowing*:—let him enunciate the primal fact of his personal existence, “I am;”—he cannot but recognise that in this act he knows his own being, knows it because what he is morally is his own act, knows that it is by his own act that he affirms and constitutes his own being, or sphere of agency, as a moral and personal Will.

* Mental Dynamics, pp. 52—4.

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Let me entreat the student to meditate earnestly on the subject, and I think he will be convinced, as of a truth that reveals itself as self-evident, that the individual Will cannot be other than *self-ponent* in and by the act of self-affirmation, conceived and expressed by "I am," let the agent aim at or intend "to be" whatever his inclinations may prompt, or his sense of moral obligation dictate. This act of self-ponency, made determinate only by a definite purpose in a more or less persistent agency, is the indispensable condition of all moral responsibility, and of the freedom and autonomy of the Will. "Moral" even in the larger sense of the term, in which it means only that which belongs, or must be attributed, to Will, without denoting, in the narrower or stricter sense, what is regulated by the Conscience,—the term "moral," I say, in any and every case where used as the attribute, or mark, of Will, and where implying only self-determinant power, cannot but mean and implicitly assert the primary and essential of the Will, by which it wills itself, and is self-determinant of its self as a moral agent, willing itself in and to its own sphere of act and being. In short all Will must primarily will itself as Will; and as all Will implies self-ponency, so Will is inconceivable as a reality, except as a self-ponent Causator. The individual Will without aim, or predeterminate purpose, implying as they do self-conscious in-

telligence, would be no Will at all, and the very supposition of a Will without a purpose, as of a purpose without the conscious intelligence of a personal Will, contradicts itself. "Will" would lose all meaning except as causative and originant, and would not be conceivable as causative except as constitutive of itself as Causator, or as an originant Will,—would not be conceivable, I say, except as an individual, personal, and self-conscious agent, self-constitutive by the perpetual act by which it secures its identity of being in its manifold change of agency. "In philosophical grammar the verb substantive is the first or parent word, and expresses that act in and by which the individual affirms, and in affirming knows, himself to be a Person, 'I am.' In the nonage of individuality the child speaks of himself in the third person;—and how few ever reach that epoch, at which the man consciously affirms, that is, realizes by a continuous act, his completed individuality as a moral being!" (Mental Dynamics, p. 16.)

§ 7. "Thus then in every complete act of self-consciousness I not only contemplate my thoughts, feelings, volitions, but I know that they are the thoughts, feelings, and volitions of myself. I know that I think, feel, will:—but more than this I can abstract, from these thoughts, feelings, and volitions, Myself as the Subject:—I know Myself. Now in saying this, What do I affirm? Clearly this: I have at-

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tained to the knowledge of Substance, of Spiritual Being, of a Noumenon, of my own being as a Spirit or Will. I recognise in myself the identity of Being and Knowing. I have reached the point in which I find my personal being in affirming, nay realizing, that ‘I am.’” (Mental Dynamics, p. 52.) Herein then, in the facts of self-consciousness disclosed by our spiritual experience, we have secured the unmovable ground of a *philosophy of Realism*, unassailable by the sceptical position of Hume or of Kant. The doctrine of these philosophers is, that we have no proper Self-consciousness or Knowledge of a Self, and that what we call Self-consciousness is the cognizance only of the mental presentations of that which we may infer indeed to be a one mind, but of which we have no knowledge beyond its manifestations in the consciousness, its appearances or phænomena. On the other hand, the Spiritual Philosophy offers to us a well-grounded system of Realism;—for in accordance therewith, as we venture to assert, we have incontestably shown that, “as man, in affirming his Personality by the verb substantive *I am*, asserts, nay acquires the knowledge of his own Substance as spiritual being, and thereby knows what Substance truly and properly is,—so he contemplates the outward, persons or things, as subjects partaking of reality by virtue of the same Substance of which he is conscious in his own person, and meanwhile, under the sense of

power which arises simultaneously out of the depth of his inward being, he invests nature with life, action, causality, spontaneity." (Ibid. p. 16.)

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§ 8. But it may be objected that, although it be admitted that man is subject to a logical necessity of finding, or attempting to find, the unity of his manifold knowledges, and in every instance the principle which combines and unites mentally his empirical observations and the facts of his experience, yet that I am here rather evading than establishing the principle of "Causative Power," although I have repeatedly insisted upon it as the main element of sound philosophy. I hasten therefore to reply to this objection, notwithstanding that my business here is to anticipate evidences, reasonings, and results, and in conformity with my plan rather to ask the reader to accept as a postulate the solution of the problem. I would say then—claiming the indulgence of suitable brevity—in explanation of the true and real meaning of "*Causative Power*," that the notion infallibly presents itself when a change of phænomena is impressed on our attention, when the human mind is challenged to account for a fact which had before no existence, whether the fact had never been observed at all or only not in the particular relation and connexion now observed. Now two modes of view are possible. The first regards the relation of Cause to Effect as merely that of an *antecedent* to a *consequent*, the

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sequence having been the constant result of empirical observation. The second attributes to the cause a *power* or *efficiency*, by which a real connexion *in rerum naturâ* between the antecedent and consequent, an efficient and intelligible condition of dependence of the latter on the former, shall be unavoidably established. According to the latter view, then, a change in a subject, which we may call X, from the state A to the state B shall imply a causative connexion between A and B, or such condition of dependency, as that which causes A to become a B which it was not before, and without which it would have remained A. The whole gist of the question evidently lies in the value and significance to be attached to the term Cause. The Empiricist refers it solely to the empirical observation of the invariable association of the phænomenon A with phænomenon B:—the Kantian means that the connexion between cause and effect is the result of a subjective law of the understanding, existing anterior to, and for the purpose of acquiring experience:—while the Spiritualist, of whatever grade or denomination, claims the capability of the human mind to *infer*, beyond sensible experience, a somewhat which under the name of causative power is a real and efficient agency *in rerum naturâ*, which changes phænomenon A to phænomenon B.

Now it cannot escape attention that the empiricist repudiates the knowledge of any real and

efficient connexion or influence, and gives up the explanation of the invariable association which he assumes to be the test of the causal connexion. He deprives himself even of the claim to infer a connexion, except as the result of a habit of association in his own mind, and must admit that for aught he knows to the contrary there may be no connexion, and B may be merely substituted for A. But this view, it must be admitted, can only be regarded as little less than a blank contradiction of the conception of what a "Cause" is; since at least it is universally meant to imply a connexion so far partaking of a necessary influence, that an effect B must always be referred to a cause A as the inevitable consequence of some relation to A. And whether the Spiritualist, when the grounds for a satisfactory judgement shall have been laid before the reader, can justify his claim to the possession of the idea so conceived or not, thus much is at all events clear, that he proceeds upon the clearly defined and universally acknowledged problem of vindicating the existence of causative power as the ground of a real and efficient connexion, and as that precondition, which is adequate to produce, account for, and explain or render intelligible, the agency itself, by which any change, of which there may be question, shall have been effected. Hence then the postulate in view may be thus stated:—Whatever becomes other than it was before and acquires a change of attributes, or

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whatever must be contemplated as, or traced to, a beginning *de novo*, cannot but imply the productive efficient, by which the change is wrought and rendered intelligible, namely, the “Causative Power,” which is recognised in and by the constant and unvarying character of its effects.

CHAPTER III.

IDEAS.

§ 1. ASSUMING that the distinction, hereafter to be vindicated, between Understanding and Reason be well founded, and that the latter implies, as its inalienable object, Truth absolute, conceived as eternal, immutable, self-evident, one, and in its unity all-comprehensive; it will be found that the *Reason*, considered as *Speculative Intellect* or Philosophy, in its search for absolute truth, combines *three* distinctive forms of operation.

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i. In the contemplation of the manifold events and appearances, which under ceaseless change challenge observation and scrutiny, the human mind finds no rest until it has discovered the *Cause*, or that which satisfactorily accounts for any observed change, and which may be assigned as the *power* and *agency* capable of producing the effect, and invariably operative in order to the result in question.

ii. Further, the mind seeks to discover that which in any and every object, or collective manifold, amid every variety and change of attributes, properties and accidents, amid all mutations or transformations of phænomenal

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existence is itself permanent and abiding; that which may be accepted as the reality, in contradistinction to the appearances, of things, and constitutes their individual being; that which is the ground of the distinction between what a thing *is* and what it *has*. It is obvious that the distinction here intended is that recognised as Subject and Attribute, Substance and Accident, or whatever else may have been the mode of expressing such relations; but the only question requiring solution, and the answer to which will be found in the subsequent part of this essay, is, whether the human mind legitimately affirms, or unavoidably infers, that there is a substance or subject, which in every case underlies phenomena or appearances.

iii. The third, or last operative form of the Reason, is manifested by the irrepressible desire and striving after *Unity*, by the habitual effort to bring whatever may be the object or objects of knowledge and inquiry into the relation of a *Whole and its Parts*. And if, as the Spiritual Philosophy proposes, the totality is to be contemplated as a real and effective Unity, the requisite interdependence of the integral Parts must be derived from an antecedent and causative energy, which, as intelligent power, having produced a whole of parts, remains as its conservative principle.

§ 2. While the Reason, as the light of the Speculative Intellect, has, for the interpretation

of all our knowledges, the above-described three operative forms, as the instruments and elements of philosophy, those three forms, in relation to the real and effective Unity which is required, cannot but be regarded as the correlative elements and exponents of the unity. For the principle, which we have invoked in behoof of philosophy, may be described as a *Causative* principle, which, combining both power and intelligence, contains, predetermines, and produces its actual result in all its manifold relations; and which, whilst abiding as the *Substance* and as the self-subsistent and self-affirmed energy, is realized in a Whole of Parts, wherein the same principle, as the *Constitutive* energy, is evolved and set forth in its unity, totality, finality and permanent efficiency.

§ 3. In the above description it may be said that one of the main principles of the Spiritual Philosophy and of the working of the Reason, considered as Speculative Intellect, has been offered to the student,—namely, what is meant by an “*Idea*.” For further light on the significance of this all but indispensable term to philosophical insight, the reader is referred to the preface of the *Vital Dynamics*, where he will find various examples of its application and uses. Thus it may be said that the Reason in man, regarded abstractly as speculative, prompts him to search unceasingly for the Unity, insight of which the Reason supplies for the comprehension of his manifold knowledges; and that, wherever this

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is attainable by the discovery of a Principle adequate to account for the many as a Totality proceeding from a One, and exhibited in an unity of interdependent Parts, the human mind attains to the possession of an “*Idea*.” In saying this, however, it is to be observed that the Speculative Reason, considered as operant in and by Ideas, implies somewhat more than the bare insight of unity;—“it is the idealizing power;—the power, instinct and inherent tendency of man to contemplate all his thoughts, feelings and strivings in their perfection, integrity, unity, universality, totality, absoluteness.” (Mental Dynamics, App. p. 59.) For illustration compare Pref. Vital Dynamics, p. xxiv. on the use of the terms “Type, Pattern, Exemplar, Model, παράδειγμα.” And thus it may be added that the function of speculative Reason in forming Ideas is *Integration*; and that every Idea may be expressed as the Integral, “of which all the forms within our experience are but approximations.” (Ibid.)

§ 4. It may be further noted that, as far as the speculative intellect has yet carried us, the conception of what Ideas truly are has been left in that imperfect state, in which indeed the *Form* has been logically secured, but without any adequate assurance of a *Reality*, apart from the subjective form derived from the requirements of the speculative intellect. Now it may be safely averred that the grand difficulty, which has opposed itself to the establishment of a

sound philosophy has proceeded from the neglect of building it upon the secure foundation of *Realism*; and perhaps no better occasion could offer itself of vindicating the philosophical truth of the doctrine of Realism, than the present one of considering, so far as our purpose requires, what are the grounds, upon which rests the Reality of the conceptions of Cause, Substance, Unity, and Totality in the speculative *form* of an "Idea."

I now invite this discussion with particular reference to the Idea which I have stated to be fundamental in the Spiritual Philosophy. The required principle of the Unity of the Manifold of the Universe physical and moral, must (I said) be ONE, of all reality the absolute cause, which, affirming and realizing itself as its own abiding and self-sufficing ground, utters and reveals itself in the infinite manifold of Being, entire in All and entire in Each. And regarding that to be the indispensable postulate of philosophy, in its utmost height, breadth and depth, I ventured to affirm with the fullest confidence that the Principle sought for is WILL.

§ 5. Now, I claim at once the acceptance of this principle, as a primary Truth of Reason, and as one which contains and rests upon its own evidence. For, in order to that real and effective unity, whereby the many, without ceasing to be manifold, are constituted and contemplated as One, we are under the unavoidable necessity of

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referring to "a causative principle, which, combining both power and intelligence, contains, predetermines and produces its actual result in all its manifold relations, in reference to a final purpose, and is realized in a whole of parts, wherein the principle, as the constitutive energy, is evolved and set forth in its unity, totality, finality, and permanent efficiency." Such principle (that is, a principle combining power and intelligence) has been already introduced to the reader under the name of an "Idea." But to what principle, other than that of the Will, dare we attribute rational intelligence, predetermining and achieving actual results in the antecedent unity of a final aim and purpose? or how otherwise shall we conceive such Will than as a personal agent? "In the world do we not see everywhere evidences of a unity which the component parts are so far from explaining that they necessarily presuppose the unity as the cause and condition of their existing at all? Every whole of parts, be it the minutest crystal, a plant, an animal, the globe which sustains us, the solar system of which it is a part, or the universe itself, in the infinitude of which that system is less than a mote,—every Whole of Parts demands for its intelligibility a cause or principle of each union, a power and unity, antecedent in the order of efficiency, and remaining present as the sustaining and conservative energy; it implies a legislative act,

predetermining the result, compelling implicit obedience, and excluding all contingency;—an act combining the foresight of wisdom and the power of irresistible will as immutable purpose and persistent function; and that (saith the judicious Hooker) “which doth assign unto each thing the kind, that which doth moderate the force and power, that which doth appoint the form and measure of working, the same we term a law.” Vital Dynamics, p. 18.

It is true that we have in the above quotation introduced what to some minds will appear the unwarrantable assumption of “causative power” and “Will,” and that this may appear to them unnecessary for the purpose of achieving the unity which the human mind demands. And it may be observed that if reliance is placed solely on *empirical knowledge*, the value of the conceptions of Unity, Substance, Totality, may be represented merely as mental forms or subjective moulds of the contemplant, and as such having no claim to any objective validity *in rerum naturâ*. On the other hand the advocates of the spiritual philosophy affirm, and rightly affirm, that, in order to any real and effectual unity, the conceptions of causative power and Will are not only indispensable to the fulfilment of the conditions under which the human mind can only contemplate a real unity or organic whole, but are securely attainable within the limits of human consciousness.

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§ 6. Now I affirm that any Unity, in which the comprehended many, without ceasing to be manifold, are constituted, or have the constitution of, One, is inconceivable except as proceeding from One, which already contains and presupposes its final purpose ;—for otherwise, being without aim, the proceeding would be futile, objectless, and nugatory. Further, this antecedent One, or potential unity of the manifold, is inconceivable except as predeterminate in aim and object, and this predeterminate we may call the “ *Type*,” or that to which whatever may be deduced from the original One is to be referred for its intelligibility ;—since, without this typical paradigm, that requisite element of Likeness, the recognition of which constitutes every component of a whole a partaker of the pervading One, will inevitably escape us. Thirdly, the antecedent One must be conceived as realized and existing in a Diversity of interdependent parts and distinctive relations ;—for, without such evolved and distinctive existence in all the manifestation of being which the Type implies, the parent One would have remained, or could be conceived only, as an undifferenced, unintelligible potentiality, and not as a real and evolved product.* Fourthly, the original and typical

* For the empiricist this essential condition of unity will have no importance, since he necessarily proceeds from the given manifold to the principle, from which it is to derive its explanation and intelligibility, and from which he may deduce it as fact or phenomenon.

One must be present in each of the Manifold ; with a difference indeed, which constitutes the particularity of each for itself, but still whole and entire in each, so as to modify and adapt the particularity of each to its position and relation in the Whole of which it is a part :—since, without the full and complete participation of each in the Type, i.e. the design, purpose, paradigm, which constitutes all parts of One indivisible Whole, no part could be an integral component or adequate representative of the whole of which it is intended to be at once a relative part and a partial integer. Fifthly, the same One, which has been the antecedent Type, must reappear as the Unity, or totality of all the members, in order to the organic whole contemplated from the beginning in the constructive principle :—for otherwise the diverse manifold of the evolved product would not be conceivable as the Totality, which had been primarily projected ; whilst, on the other hand, so conceived, the resulting unity will reappear in a Totality, in which each and all of the members, whilst maintaining their several places and distinctive offices, conspire to the whole intended from the first, and bear the impress each in its kind of one and the same Type, which animates all in order to the permanence and efficiency of the Unity aimed at. Sixthly, whatever may be the nature of the bond of unity in any such organic whole, or whatever may be the real and effective character

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of the pervading Type, it must ensure the permanence of the assigned connexion; and this we can only represent to ourselves as a somewhat which remains the same amid all change and diversity:—since, without such effectual bond of union, no totality would be conceivable, and the uncemented parts would fall asunder, or remain only as a heap of disjointed fragments. And it is this indispensable unific somewhat, which the human mind necessarily conceives as the *Substance* or *Subject*, which underlies and supports whatever attributes may be assigned to it by the contemplant.*

§ 7. Under these six heads we venture to present to the student what may be called the *moments of Ideal Construction*, or of the integral process. And it will be found that they correspond to, and are founded on self-evident truths, which may be called *Axioms of Rational, or Spiritual, Integration*:—that is, Will, as causative of reality, cannot be conceived or contemplated in its integrity, or inherent tendency thereto, except under such conditions of integration as are expressed in those axioms. It is true, indèed, that we have to conceive Will in

* It was, in the spirit at least of this paradigm of ideal logic, that the saying of Cuvier's, to which I referred at page 95, was uttered:—“*Celui qui posséderait rationnellement les lois de l'économie organique, pourrait refaire tout l'animal.*” (Révolutions du Globe, p. 99.) “For what else does he assert, than that in the light of a law, or legislative idea, according to which the animated being was originally constructed, we obtain insight into the forms and relations of organic structure, and of their necessary interdependence.” Vital Dynamics, p. 25.

the Idea, or ideally; but abstracting, as this mode of conception obliges us, from all incidental circumstances and extraneous influences which detract from its completeness or inherent tendency thereto, we submit the following as the *Axioms of Rational or Spiritual Integration*.

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§ 8. Axiom 1st.* The postulate of all reality is *Will*, as the principle, which is absolutely causative of reality, and by which alone all causality is rendered intelligible.

Axiom 2d. All Will must primarily will itself, that is, assert itself to be a Will, or to have being as a Will.† In our own consciousness we

* It is to be observed that in calling this and the following propositions the "Axioms of Rational or Spiritual Integration," we might have equally named them "*Ideas*:" and as such they are dynamic truths, which are *à priori*, that is, are originally, inherently, and often more or less unconsciously, operative in the human mind by virtue of the light of reason therein: and which, by reflection on the facts of his self-consciousness, every man may discover for himself as the results of "spiritual intuition."

† It is true indeed that this position will be conceded as an axiom, conditionally only upon the assurance of the individual that he is conscious of himself as a Will. That assurance, as has been observed, must be his own act and derived from the exertion of his own Will;—it is by exerting his Will that he becomes assured of its reality, and of its realization in himself. But if he has that assurance, it is manifestly absurd to deny the truth of the above primary axiom; since a Will cannot but will its own Will, and cannot be or have being unless by the persistent and continuous act, which we have called self-ponency, and which constitutes his personal individuality as a moral agent. The individual may, it is granted, deny that he is, or has a will, as the ground of his being; but in the very act of denial he contradicts himself, since in the exertion of the will, which it implies, he asserts what he denies. Again, should he profess a sceptical inability to decide for himself the momentous question, which involves that of the moral nature of man, he does but confess to his incapacity for sounding the depths of philosophy; and,

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find this primary act in the Self-affirmation, which is expressed by "I am," as signifying the ground of the personal being of the individual derived from the act of his own Will, and the assertion of his personal identity;—and no less it marks the identity of being and knowing, the essential union of the "*principium essendi*" and "*principium sciendi*." And thus as all Self-ponency implies Will, so Will is inconceivable as a reality except as a self-ponent Causator. If a man is not what he is by his own act, in so much he is not a Will, or free agent, in the *ideal* sense of the term. Self-ponency is indeed conditional upon the assurance, derived from the self-consciousness, of Will; but, having the assurance, he cannot but affirm himself to be a Will, and so begin his self-conscious existence by an act of his own Will. This then is the first relation. But, secondly, with the act of self-

and, whatever his professions may be, he will always, as experience abundantly testifies, act as if he had, or were, a Will.

Thus, as before said, Whatever manifold has Unity,—whether it be a product of nature, or art, or (as germane to our present subject) the conduct of a man, who in all his manifold purposes and deeds evinces a consistency of moral character which can only spring from unity of principle,—Whatever manifold, I repeat, may justly claim to possess unity, must proceed from a Causative One, and find its only and adequate intelligibility in the Will. Our fundamental principle then is that the postulate of all reality is Will, or that which is absolutely causative of reality. And the arguments we have advanced, not indeed as proofs, but as appeals to what every rational being may find in his own self-consciousness, justify us in demanding from him the concession of the principle enunciated. This view will, however, receive additional and clearer light as we proceed in the statement of the "Axioms of Rational Integration."

ponency, the Will cannot but will itself in *Alterity*, that is, in the manifold of act and reciprocity, which constitutes its sphere of being and agency in all its outward relations. For Will, considered merely in the relation of Subject, could be conceived only as a potential agency, —such as would be an unevolved point under the condition of a possible expansion, but still awaiting solicitation from without and impulse from within to rouse its dormant capability to become an actual sphere and objective reality. Further, if, as we have asserted and now repeat, the Will as the antecedent One is necessarily distinguished in and by the opposite relations or correlatives, Subject and Object, and is ever *idem et alter*, we are under the like necessity of conceiving that under its distinctive relations it remains *the self-same Subject*. We accordingly must supply the third, combinatory and complementary relation, which, in preserving the distinction of the correspondent opposites or correlatives, secures their necessary Unity. Without the conception of this Unity, the correlatives would fall asunder, and the idea of *Totality* would altogether escape us; and yet if we are to contemplate any assemblage of multiform distinctions as comprehended in One living individuality or organic Whole,—say a plant, an animal, a community, or any association of men formed with a definite aim,—the idea of a constitutive unity is no less than indispensable.

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We may say then, as the sum and substance of the preceding axioms, that any attempt to conceive or contemplate a Whole of manifold parts otherwise than as proceeding from a Causative One: which realizes itself in its self-affirmation, as the antecedent unity and typical paradigm of the construction it proposes; which, on the other hand, exhibits itself in all the multiform acts and products which constitute its sphere of being: and which finally reappears, as consummating the totality which had been proposed and anticipated from the commencement of the process: that any attempt, I say, to conceive the genesis of a Whole except under these conditions will be vain and nugatory. And, it may be added, these relative acts are not to be dis-severed as successive phases of agency, but to be regarded as simultaneous, though distinctive *Moments* of one and the same essential operation.*

* The reader will please to observe that the relations here described are the universal and indispensable elements of the *ideal construction* derived from Will as the principle of every genetic process. And it will be seen that they correspond to the distinctions, which we were unavoidably led to in the account given in Chap. II. of Self-consciousness:—Will is the ground intelligent and causative, which, as *antecedent One*, distinguishes itself into the *opposite relations*, Subject and Object, and into the *combinatory* relations which, in preserving the distinction of the correspondent opposites or correlatives, secures their necessary unity. To these distinctions we shall hereafter have to return in giving further significancy to the paradigm of ideal construction thus enunciated; not forgetting however that the “Categories,” which have been found to be the “moulds of Experience,” will be now seen to be the relations which must be conceived as necessary to the realization of the Will as enlightened by Reason;—a truth, which cannot fail at once to strike the

§ 9. In the previous section the fundamental axioms of Rational Integration have been enunciated; but their importance in the philosophical problem, which we have undertaken to solve, will require that we should regard them in other aspects not less requiring attention in order to the estimation of their true value. I ask then the admission of the following axiom, which relates especially to the *intelligential character* of the construction:—

3rd Axiom. The Will (in any proper sense) cannot be conceived otherwise than as inseparably united with intelligence, and this *ideally* as the Light of Reason; and, so conceived, the Will is guided and governed by a Purpose, or Final Aim, which as Antecedent Unity contains prospectively and potentially the realization of what it proposes. A will, that does not operate from the beginning according to a certain law or idea, and does not predetermine its final result and intention, cannot but be, as far as it falls short of such idea or final purpose, inefficient and abortive in its acts.

This position involves the following corollaries:—

A. The Self-ponency is a continuous and

reader, when he considers that the subjective relation expresses, or rather implies, the category of Subject and Attribute or Substance and Accident; that the objective relation of the Will explains the category of Cause and Effect; and that the category of the whole and its parts is founded on the antithesis and synthesis of these subjective and objective relations.

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persistent act, implying throughout the unalterable conviction of the truth, which directs it;— and this truth is to be conceived, not only as final aim, but as the ideal type and predetermined typical paradigm, of all that proceeds from the act of self-ponency. That the self-ponency must be conceived ideally as a continuous and persistent act, in order to the requisite unity of abiding Being, and this by the light of self-conscious intelligence, is manifest; since otherwise the primary act of Will would be fragmentary, disconnected into fits and starts, disturbed by sudden and crossing resolves, purposeless, unmeaning, and thereby incapacitated for achieving its individuality. It may be, indeed, truly said: that “few ever reach that epoch, at which the man consciously affirms, that is, realizes by a continuous act his completed individuality as a moral being!” (*Mental Dynamics*, p. 16.) “Various, indeed, may be the forms, which reveal the essential idea of our common Humanity, various the causes of degeneracy, which render its growth imperfect or abortive, various the forms of mental excellence and of moral dignity, to which it gives birth: but still it is the living and persistent energy of the moral will, which gives the impress of character and of genial power to a Luther, a Dante, and a Milton, and stamps an indelible unity on their aspirations and acts, their works and their aims.” (*Ibid.* p. 10.)

B. The original Type or Idea, impressed by PART II.
Chap. III. and derived from the self-ponency, shall be ever present and operative in the Alterity,—ever active wholly and fully, *totus et integer*, in each and every diverse relation of the manifold in and by which the idea is manifested *in actû*; so that, by its light, each shall be adapted to each and to all, in the unity of the first intention of a One-in-All. This tendency to individuality in the parts (arising out of the repetition in each of the total idea which gave it birth, and though ever varying the type yet representing it in alterity) is manifestly indispensable to the true conception of the Identity and Alterity of every ideal whole. Were it otherwise, it must be supposed that there were parts derived from a diverse intention to that of the whole in which they appear. Such parts, being alien and foreign, could not harmonize with others in the projected unity; and the result would be an assemblage of incoherent parts—no whole, but a heterogeneous heaping of material without community:—“*inter heterogenea non est communitas.*” That the act of the causative of the whole should be total in each of the components, is not only compatible with the greatest variety, but implies it. Take any product of nature, say a predaceous animal,—and though teeth, claws and motive apparatus are widely different from each other as component parts, yet they are evidently results of the same intention and purpose in the total organization to which they contribute.

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And the perception of this unity in diversity, of this One-in-All, is vouched for by such expressions as "*Ex ungue leonem*," "*ex pede Herculem*," and the like. Not to mention the scholastic maxim:—" *Ubi anima est, tota est, tota in toto, et tota in quâlibet parte.*"

C. But if in every organic Whole the final aim appears in the process of construction or genesis, it must reappear in the result as the *Totality*, or All-in-One, which was contained in, and projected by, the Will in the primary act of Antecedent Unity;—the predetermined aim and purpose is now to be contemplated in its realized result and achievement. And this *Totality* implies that each part of the organic Whole shall be adapted to each other and to all others in the unity of the first intention, in order to the completion of the purpose which had existed from the beginning. Without this result it is manifest that the intention has not been carried into effect, and that, so far as it has not been accomplished, the act and process of the Will, as originant, predeterminant, and operant, is abortive and vain.

Thus the Axiom shows that in the realization of any *Totality* or *Diversity* in *Unity*, an *Idea*, as the *Resolve* of the Will or causative agent, must have operated as antecedent unity or typical paradigm, and that in the light of the same *Idea* every component is adapted to each other and to all, in order to the completion of the projected

whole. The axiom affirms that the Will, in any process of ideal construction, requires to be throughout sustained and supported by the Idea or final aim, which renders that process from beginning to end one harmonious work of Reason. Thus,—“every organic whole, from the polyp up to man, indicates a higher and more effective power of unity, and therefore of more perfect individuality, in proportion as the parts are more numerous, yet at the same time more various, each having a several end; while yet the interdependence of each on the other, the subordination of the lower to the higher, and the intimate of all to the constitution of One, shall be perfected in equal proportion.” Vital Dynamics, App. C. p. 59.

§ 10. But the former axioms would be defective in the exhibition of their character as truths of Reason, were there not superadded another not less essential Axiom of Rational or Spiritual Integration, namely, that which affirms for every ideal process the necessity of its Integration. “Reason is the idealizing power—the power, instinct and inherent tendency, of man, to contemplate all his thoughts, feelings and strivings, in their perfection, integrity, universality, totality, absoluteness.” (Mental Dynamics, p. 59). The 4th Axiom then might run thus:—In the act of self-ponency, and in realizing whatever is *potentially* contained, purposed or projected, therein, whatever is willed cannot but be willed in its fullest integrity;—for what-

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ever falls short of its ideal integrity falls short of its aim and true reality.

It may be true that absolute, or ideal perfection, is unattainable, and that more cannot be expected of human Will than to strive ever to approximate to that goal which from its very nature cannot be reached. But to aim at imperfection is absurd ; for it is virtually a resolve not to accomplish what is aimed at. What, in every construction or genesis, can be alone aimed at, is the true reality ; and this true reality is *ideal*. It is only by the aid of the Reason, that we are enabled to discern the eternal Ideas, which are the regulating types, standards and true causes, of their approximate representatives in a nature ever tending to lapse into the imperfect and arbitrary. (See Vital Dynamics, Pref. p. xxviii.) To this subject, namely, the relation of the perfect types of Reason to their imperfect derivatives in nature, in consequence of the pravity of the latter, I shall have occasion to return. Meanwhile if it were asked, what constitutes the true being of any product of nature within our experience, say a Rose, a Horse, a Tiger, a Man,—we can only answer, amid the more or less imperfect specimens offered to our notice, that which most fully and completely corresponds to its original design or ideal aim. This our experience only furnishes us with *approximatively*. It must be contemplated as *Idea*.

Under the head of the fourth Axiom, which

to the essential conditions of ideal construction adds that of Integration, we have to supply the following Corollaries:—

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A. The Will, in the case of its self-ponency and self-affirmation in personal Being, cannot but will itself in its perfect ideal integrity. That every Will endowed with Reason should aim ideally at its spiritual integration is manifest from the axiom under which this corollary appears. But I forbear to do more here than indicate a subject, which involves a consideration of the Principles of Ethics, and of the problem, which is to enlighten us on the essential character of the Humanity, and to determine the relations of man to God as the eternal Idea of absolute spiritual integrity and the moral Integrant of his fallen creature.

B. A second corollary offers the truth which cannot be severed from the former, that the perfect integrity which the Will affirms, or aims at affirming, in the act of self-ponency, must be affirmed or realized in the *Alterity* derived from it, and this in all the diverse forms which exhibit the capabilities, potentially or ideally infinite, of a Will realizing itself outwardly in order to achieve its sphere of being and agency.

This corollary is to be regarded under two conditions; one of which we may call *particular*, and the other *universal*.

The first would relate to the life and conduct of an individual Will,—as of a Man who mani-

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festes in all his thoughts, deeds, and words, the Principle; which, determining his self-ponency and fixing his abiding "character" as a moral agent, impresses itself on his every act, in due order and proportion, and constitutes it a part of his total sphere of agency. Loss of "character" was felt even by the Greek tyrant, who, being moved to tears by a tragic scene, abruptly left the theatre, exclaiming, "How scandalous to yield to pity in witnessing one death, when I have been accessory without remorse to the death of thousands!" But how little dare we expect consistency of character, when even the best and wisest of mankind fail in preserving its integrity. How bitter must have been the reflections of our great reformer Cranmer in the weakness which led him to recant the cherished principles of his life, redeemed though it was by the noble retractation which brought him to the stake.

But in order to the full conception of Individuality in its integrity we have to regard the Will in its universal as well as its particular aspect:—since it will be found that true Individuality contains and conciliates the opposite relations of the *Universal* and *Particular*. We cannot conceive them, except by abstraction, as single and separate. In respect of actual Being, a mere Particular, or we might say a part which is no part of a real whole, a particle, or atom, would be no "part" of any thing,

and, if at all conceivable, not more distinguishable than the particular dust-atoms in a simoom of the desert. On the other hand, the Universal, in respect of any real existence, can only be properly defined as a One-in-All:—without the relation to an All of manifold distinctions, the One becomes a mere abstract, and expresses a One which is wholly “undifferenced,” that is, which, being contemplated without relations, has and can have no real Being. But, as I have said above, Individuality in its appropriate significance partakes both of the Universal and Particular. The “individual” is to be conceived as a lesser Whole in the larger Whole of which it is a Part:—the tendency to integration in this lesser or relative Whole is partly the result of the one and universal tendency to integration, which, in pervading and giving unity to all, tends to integrate each;—partly, on the other hand, it denotes in the Particular the common tendency of all Will to integrate, and by its own peculiarities to distinguish, itself. The first tendency works to repeat in the Part what is intended in the Whole, to make the lesser and particular whole the reflex and representative of the universal or larger whole; the second or particularizing tendency, by opposite means, though with similar aim, works to integrate the self by diversifying and modifying the universal. If illustrations were needed, the reader might be referred to the personages devised by Shakspeare

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or other writers of fiction:—without the universal character of the humanity (and the supernatural beings of fiction form no exception) they would be so alienated from the sphere of our being that they could excite no interest; but, without the distinctive peculiarities which mark the particular in each, they would cease to be individuals, and would become lifeless abstracts of the universal humanity.

What has just been said may serve to throw a further light on the preceding paragraph touching the individual; but we have to beg the reader's attention to some further observations on the universal factor. I repeat that the Universal, defined as the One-in-All which gives unity and connexion throughout, and contemplated in its highest and largest sense, can be no other than the *Absolute Will* causative of all reality; and so in every sphere of being, which constitutes a relative whole in that larger Whole which comprehends all, and can no longer be considered a part of any larger whole, the Will-act is *totus et integer*, whole and complete, in constituting its sphere of being or Whole of Parts. To affirm that the principle of all reality is other than one, would be manifestly absurd; for if we affirmed the reverse we should affirm the existence of a plurality of *discordant* principles:—I say *discordant*; because if they were accounted to be accordant, the principle, by which they were so, would drive the reasoner back to the unavoidable

admission of a source of unity, or of one fontal principle. On the other hand, however, such a "One" can only be conceived as "differenced" into a manifold of distinctive spheres of being; and (as before said) without relation to a manifold of distinction, the One becomes a mere abstract, which, conceived without relativity, can have no real being. Hence then the *Universe* itself is to be conceived as a *Whole of Parts*, but can only be so conceived in its integrity as animated by One Will or Spirit, present and operative everywhere, and exerting itself totally in and to every sphere of individual being:—if it were not operative, *totus et integer*, in every and each part, that part in which its energy and operation were wanting must inevitably fail in being an *integral* constituent of the Whole, and would want what is essential to make it a part—namely, *participation* in the character of a Whole, as derived from one and the same operance.

After this digression, to which we have been led in explaining the last corollary (that the integrity of a Will-act shall be realized in the *Alterity*) it remains that we state our third corollary.

C. All Will cannot but will that the manifold of its distinctive acts should constitute a *Totality*, a full, complete, and perfect Whole:—for, without this consummation and unity of the All-in-one, the result would not be *totus et integer*, the act of one Will or Subject.

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Wherever then we contemplate Will in its *Idea* (that is, as causative of reality, and therein actuated by the light of Reason), the Principles, above described as axioms of rational integration, will be found to be operant. Every rational Will must have a final aim or intention, and must in realizing that intention resolve to carry it into effect fully and completely. And, though this view of the Ideal Will is only approximately realized in the agencies of the world, yet no Will can act under other conditions than those expressed in the axioms above cited; and any Will which fails in fulfilling these conditions—as especially to intend without a definite aim, and to resolve without the intention of carrying into effect a final aim—forfeits the character of Will according to the *Idea*, and becomes abortive by self-contradiction.

I venture to assume that we have now found an adequate paradigm of the Ideal Will *in actû* wherever it is causative of reality: but in order to carry out the *Idea* of Integration in the Will, of which the main features have been pointed out in the axioms already enunciated, it will be necessary to regard this principle of integration under other aspects than those yet presented, and I propose to bring these considerations before the reader in the ensuing paragraph.

§ 11. 5th Axiom. Every Will tends to be absolute, or aims at absolute ponency, in the act of willing.

The reader will be pleased to bear always in mind that the problem before him is, How to contemplate the *Idea* of Will, that is, of Will in its full and complete perfection of aim and resolve of causative act, divested of all failings and hindrances in its purpose. I am speaking here, however, of the Idea of the Will generally, and therefore *abstractedly*; that is, abstracted from all incidental circumstances which detract from its integrity or inherent tendency to integration. For otherwise the term "absolute" could only be affirmed of the Supreme and divine Will. And of the human Will, as we actually find it, we can only speak as of a Will in a state of "degeneracy." The genus includes, it is true, Supreme Will as one of its species, but does not designate it in its highest specific instance as "Absolute Will causative of all reality." But in all Will every Will-act properly so called can be only truly conceived as willing absolutely that which is thereby willed; for otherwise it would be an imperfect and abortive act, and would want the primary and essential condition of its own fulfilment. If we consider such an act under its empirical conditions of time and place, and under circumstantial agencies of obstructive interference and cumulative difficulties, the Idea may escape us; but abstract from these, and contemplate the Idea in its integrity, and it will be seen that the Will-act of even a horse in leaping a fence must be *totus et integer* in resolve and

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purpose—yes, *absolute*. How much more then that of a rational being, who, as a Columbus or Howard, never swerves from the realization of an ideal aim and from his one absolute purpose, whatever may be the difficulties and dangers of his enterprise. Moreover every spiritual act, having its ground and precondition in that which is antecedent and transcendent to the conditions of being and existence, namely the Will, is by its very nature “absolute,” that is, under no other conditions or relations than those of its own *aseity*, or unconditioned originancy.*

But in the foregoing exposition I may perhaps have incurred the risk of being misunderstood by using the term “Absolute” in its ideal sense, that is, as designating an object of conscious thought, apart from the conditions and relations which limit and detract from its ideal integrity, though not excluding them as necessary elements of the actual being of the object contemplated. To apprehend an object of thought “absolutely”

* A pleasant illustration of the tendency of all Will to be absolute will be found in the story told in Grimm’s *Kinder und Haus-Märchen*, of the fisherman’s wife, who, not content with having become successively Baron, King, Emperor, and Pope, would needs arrogate to herself the power of the Almighty. So true it is, as in this instance, that all the great Ideas of our Humanity are found to be the widely-diffused inheritance and possession of “babes and sucklings,” and transmitted from age to age in nursery-tales and children’s stories. In such too the timeless character of all Will and spiritual act is finely illustrated by the circumstance that the incidents and characters are of no age nor country, though at home at all times and in every place;—and this not as abstractions, but as vivid realizations of the spiritual nature of our common humanity.

is to apprehend it in its idea ; but to apprehend it in its idea is necessarily also to apprehend it “relatively ;”—it implies the whole scheme of relations in and by which the idea is manifested in actual being. “Absolute” and “relative” are, in truth, relative terms, which imply, each the other. To divorce them from their inseparable union as correlatives and reciprocal correspondents, each throwing light on the other, would be to reduce them to mere conflicting abstractions, exclusive of each other. Nevertheless, without setting aside their interdependence, we may advantageously, nay in many instances unavoidably, contemplate an object of thought as absolved from all other conditions than those which are essential to its integrity or ideal perfection. Indeed we must do so if we are not to resign the indispensable privilege of a rational being in fixing a *Standard* of excellence by which to judge and to measure whatever falls short of it. Without the possession of such an ideal standard or pattern of moral integrity, how would it be possible for us to realize practically and approximatively the divine command : “Be ye perfect, even as your Father which is in heaven is perfect.”

But, further, the use of the term “Absolute” in the sense here assigned to it, namely, as the opposite (not contrary) to the “conditioned” or “relative,” is not only sanctioned by our best writers, but has obtained currency in general

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usage;—and this not only in respect of super-sensuous objects, but of things within the sphere of sensible experience. Thus a physicist would not hesitate to speak of an “absolute” vacuum, though he would be quite aware that it could be only “relatively” produced. A pathologist would find no difficulty in distinguishing “absolute” and “relative” health. And no difficulty attaches to conceiving in a progressive development a *terminus ad quem*, as a goal, which though it may never be reached except “relatively,” is yet the “absolute” and final aim of the progress towards its achievement.

But a difficulty has been recently imported into the subject under discussion, which does not appear to me to be inherent in the solution of the problem. I advert, namely, to the controversy, which has been raised by the doctrine of Sir W. Hamilton and Mr. Mansel touching the nature of the “absolute.” They contend that the “Absolute” is *incogitable* and *incognizable*, and not subject to the conditions which alone render consciousness possible. Their argument may be thus stated in language which I quote from a work entitled “Examination of the Principles of the Scoto-Oxonian Philosophy”:—“It is urged by them that consciousness in every mode of its exercise necessarily implies relation. In order that it may take place there must be two correlative factors, a conscious subject or person, and an object or thing, of which that

person is conscious. The *absolute*, on the other hand, is directly *opposed to, and exclusive of the relative*. When therefore we affirm an absolute thing or being to be an object of thought, or of any mode of consciousness, we at the same time affirm of that thing, or being, *relation* and the *negation of relation*; and thus our affirmation in its very terms destroys itself.”

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Now I have no desire to mix myself in this, or any, controversial discussion, which involves principles of philosophical reasoning so wholly different from mine as those in question; but, for the sake of the principles which I uphold, I deem it a duty to vindicate the doctrine of the Absolute I have advocated, and therefore (so far at least as the occasion requires) to impugn the statement just quoted from its opponents.

Thus if it be admitted, as they assume, that the Absolute is the “*negation of relation*,” it may be conceded that we could not conceive, or have a conception of, what would be a non-entity, no-thing,—that what had no marks whereby to conceive it could be no object of conscious thought. But though, as an object, it would be inconceivable and a mere negation, yet at the same time Mansel’s opinion is more than questionable; for a negation, even though nothing more, is still an act of the mind, and as such is an object of conscious thought. This, indeed, is only so far material to the point at issue that, if the *negation of relation* is equi-

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valent, as Mansel assumes, to the *negation of limitation*—[for he argues that we have no power of conceiving what is otherwise than finite and limited and that limitation is negation; that is, he adopts the erroneous view of the Germans, derived from Spinoza, that all relation is limitation and therefore negation]—it would be the denial of the thing, or object of thought itself; that is, if we deny that in which the being consists, we deny that being itself. But as the reader will recollect, I have affirmed, and rightly I apprehend, that the removal of limitations is the very condition of contemplating the subject under consideration in its ideal or highest integrity. Here, however, it will be necessary to moot another point, in which Mansel's reasoning is erroneous. It appears to me at least that he uses the term "Absolute" as a substantive denoting a self-subsistent devoid of relations, whereas it is clear that it should be used as an adjective or attribute, meaning "absolved from all limitations or conditions." When therefore used as the designation of Deity, or when it is said that God is the Absolute, it surely is to be understood as meaning that Being which is perfect and unconditional in respect of those attributes under which Deity is conceivable, such as absolute power, wisdom, and righteousness. Hence I am quite at a loss to understand how Mansel can attach to the term "absolute" any such meaning as exclusive or devoid of relations,

seeing that the attributes specified designate the highest relations in which God stands to man and nature, and without which any relationship would be alike inconceivable and nugatory.

It is not indeed a difficult task to discover the interest which has led Mansel into what I conceive to be an error in religious philosophy,—the paramount interest, namely, of exposing the abuse of the phrase “the Absolute” as the designation by the pantheists of Deity according to their godless conception. But even here Mansel appears to me to have failed in his reasoning :—for I apprehend, speaking of pantheists *in genere*, that “the Absolute” is with them the ground of all *relativity*, and, though in and of itself undifferenced, yet the One which is being always differenced and ever and only manifested in its relations—the abiding substance or Proteus of endless transformations.

It is no less easy to see that Mansel’s aim from the beginning is to establish the necessity of a revealed religion ; and surely his inconsistency of reasoning reaches its climax, when, in order to prove the necessity of revelation, he contends that we can be conscious of religious truths only as finite relations,—that we can believe but cannot conceive an Absolute God,—that we can believe what transcends the conditions of consciousness and conception.

It is evident indeed that Ideas are wholly beyond Mansel’s sphere of thought, and that his

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reasonings move only in the region of logical conceptions: but we quit the subject here, as we shall have a fitter occasion for its discussion in treating of the relation of speculative philosophy to religion, and in vindicating the position that God, as *Idea Idearum*, is the Supreme Object of Speculative no less than of Practical Reason.

§ 12. 6th Axiom. The Will is ideally a principle of *Absolute Freedom*.

If the Will be not essentially originaive and spontaneously causative, it ceases to be what we mean by "Will" properly so called. It will be seen hereafter what limitations it will be necessary to impose in considering even human Will; but meanwhile abstracting from the Idea what interferes with its integrity, it will be seen that to say the Will is free is only to say that the Will is Will. It must, however be borne in mind that, in conformity with the principle of Spiritual philosophy, Will is only Will, *αὐτόνομος* and to itself a law, when enlightened by Reason,—that Will can only be truly conceived as Will under the condition of containing a principle which actuates, guides and directs it,—and that this principle is the light of Reason which enables it consciously to discern its final aim and purpose.

But Reason, regarded as distinct from Will, is the essential principle of *Necessity*; for Reason is the principle of absolute, necessary and immutable Truth, and as such is the foundation of

all *Law*,—is itself that eternal Law, *lex legum*, which universally defends the Right, sternly forbids the Wrong, and is ever the implacable foe to all transgression of statutes which continually declare its unalterable justice and equity. Hence, in order to a true conception of Will enlightened by Reason, it is incumbent on us to provide for the conciliation of the *opposite conditions* of *Spontaneity* and *Necessity*. And it is not difficult to show that such a conciliation or interpenetration of these principles really exists, and that in all Will or Wills there is so far an identity of freedom and necessity, that the Will (say, the human) obeys the moral law under the sense of obligation arising from conviction of its excellence, and thus willingly and in freedom serves the law which itself approves and would have chosen. And, in a higher approach to the ideal aim of this combination, we may expect that the human Will would no longer need the conviction of what is right, nor act from a sense of duty or obligation, but that whatever indispensably remains of the Necessity which attaches to Law would be hidden in the spontaneous realization of the Good.

In the Axiom which heads this paragraph I have affirmed that “the Will is ideally a principle of *absolute Freedom*.” But we have learnt in the preceding investigation that, in order to realize the Idea in its integrity, the Will ought to be conceived as so far partaking

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of the necessary, immutable and inevitable, that in any proper sense of the term it cannot be disunited from the Reason;—and we regard Reason as the Truth, Truth absolute, subjectively the universal Intelligence and font of Ideas, objectively the principle of all Being and of the knowledge of all Being, contemplated in its causes and laws. Thus actuated the Will cannot but will, and this willingly and spontaneously, whatever is in conformity with the eternal Truth contained in the divine Reason—hereafter to be more fully shown as the Word of God, “whose service is perfect freedom.”

§ 13. 7th Axiom. The Will in its ideal integrity cannot but will what is *universal*, that is, what may and ought to be the will of all Wills.

If the individual Will wills only that which cannot be more than *particular*—that is to say, wills only its own selfish whims and arbitrary caprices, it foregoes its universality for its own selfish particularity, and thereby forfeits its claim to ideal integrity. In order to be truly a Will, the individual Will must will that its Will be as unbounded and limitless as the Universe—nay, as universal as the Divine Will. Nor is this language extravagant:—for thus universal the individual Will may be, provided that in claiming (as it ought to claim) such universality, it affirms itself as Will and subjective moral being in and by the Universal and Absolute

Will as the only ground of true Being and the sole Author of all reality.

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§ 14. 8th Axiom. The Will in its ideal integrity cannot but will that which ever remains the same under all change and diversity.

Essentially connected with the attributes of Will already mentioned is its property, according to the Idea, that every Will-act must be in principle continuous, permanent and abiding;—that is, in as much as it is essentially connected with the act of moral self-ponency. It may be asserted generally that the operance which is not sustained until the final accomplishment of whatever the Will proposes and resolves to effect is merely the exposure of weakness and the confession of inefficiency,—that the want of persistency marks the collapse and surcease of a Will which can only have pretended to possess moral integrity. But in the highest sense, not only should every act be adequate to the achievement of its purpose, but should partake of the moral and spiritual integrity of the primary and abiding act of self-ponency;—and it is this moral consistency in thought, word and deed, which marks the character of a man of undeviating rectitude and reliable integrity. We may indeed say that such a Will, constituted according to its Idea, cannot but will that which is *Eternal*. In using this term I must however guard against any misapprehension of my meaning by stating that it

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is intended to designate that which, as essentially "spiritual," transcends the conditions of time and space, and of all the adventitious circumstances with which they are associated in the sphere of sensible and psychical experience. The term "eternal," refers us to spiritual act and being, and to the laws of true Being which, as spiritual, belong essentially to Divine Being. And so conceived it may be affirmed, that as every Will must will what may be universal, so every Will, in aiming at its integral perfection of spiritual being, cannot but will that which is eternal, and eternal because it is the Will of God.

But the Axiom enunciated at the commencement of the paragraph tells us that the ideal Will must ever remain the same "under all change and diversity." And in exhibiting the perfections of such ideal Will, it is scarcely less than evident that, although we justly require the unvarying integrity of act which is ever one and the same by reason of the constant unity of its eternal principle, it will be demanded of us to supply a correspondent and correlative factor, in order to account for the multifarious diversity of acts, which cannot but arise out of an essentially causative and originant Will, especially when considered in its complete perfections.

This factor is supplied when it is affirmed that All Will, according to the Idea, is *infinite*. This attribute we can contemplate only

as fully realized in the Absolute Will causative of all reality. And hence in the Non-Absolute Will we can only regard it as an infinite *Potentiality* of being dependent upon the actualization of the Divine Will. Nevertheless, by the presence and operance of the Divine Will in His universal agency—(an individuation of the Universal Will being the one and sole ground of individual reality)—every individual Will in its self-affirmation affirms its infinite, though potential, capability of repeating in the totality of its own distinctive acts the whole of that Infinity of which it is itself a part. Every Will, in order to be what it ideally aims to be, must strive and resolve to manifest and exhibit all that is necessary to the perfection of its spiritual being. Less than this would be an imperfect willing, and a withholding from a defective power of Will. Every Non-absolute Will is then a process of endlessly realizing what is at once and for ever contained in the Idea which it possesses, consciously or unconsciously, in and by the inherent power and operance of what we have called Rational or Spiritual Integration.

§ 15. Hence then it may be affirmed upon *a priori* grounds that, in the process of spiritual integration, the Will (all Will and every Will) inherently, and by the very nature of Will, *tends* to realize a self-ponency which is at once free and necessary, universal and individual, eternal and infinite, and to be in all respects absolute.

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Thus it will appear, on a retrospect of the Axioms we have established, that we may comprehend the truth they contain in a conclusive Axiom to the following effect:—All Will cannot but need and crave to be, or to fill a sphere of act and being, and to integrate itself in that sphere, that is, to integrate itself spiritually, or as Will, in its absolute integrity of being.

And we shall hereafter learn that the “tendency” to absolute self-integration will have been realized in proportion to the degree in which the individual Will conforms itself to, and concurs with, the Absolute or Divine Will. And in discussing this momentous topic we shall have occasion to consider the hindrances, which, by reason of the actual pravity of human nature, oppose themselves to the progress and achievement of the process of spiritual integration.

§ 16. But finally we invite a retrospect of the foregoing disquisitions on the necessary relations of the Will actualizing itself according to the idea of its spiritual integration, for the purpose of exhibiting the grounds on which we shall seek to establish a principle therein implied, which is of paramount importance to the further prosecution of our speculative reasonings. This principle may be named *Polarity*; and its definition may be added as the *conclusive Axiom of Spiritual Integration*:—“A One Power, which manifests itself in opposite and correlative forces,

or in distinctive relations at once opposite and reciprocally complemental, and which thereby perpetuates itself in living reality and totality by *distinction in unity*.”

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Now all “powers” derive their intelligibility from Will; and the foregoing positions, established as Axioms in this chapter, testify to the truth of the proposition advanced; since we have found in the investigation of the Will the ground and explanation of the relations here attributed to all powers, and the derivation of these relations satisfactorily accounted for by the nature and conditions of self-conscious Will as the norm and origin of the conception of power causative.

The requisite element for the construction of that ideal *Paradigm of Relations* which exhibits the principle of Polarity may be easily collected from the Axioms already explained in this chapter. And, in conformity with them, we affirm as follows:—

i. The postulate of all reality is Will, or that which is absolutely causative. As such we have to regard it as supra-relative, but as containing potentially the relations in and by which Will is manifested.

ii. The Will, namely, cannot but will its self-ponecy, that is, affirm itself as Will,—on the one hand in Personal Being expressed in the “I am,” and on the other as the Type or Idea of that which it is to realize:—and herein it

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must act as indivisibly one, since a divided Will is no Will.

iii. Moreover, it must will itself in Alterity, that is, in a diversity of acts; for without Distinctions or distinctive relations, it would remain an undifferenced identity of forces without actual operance, and would be a mere and unintelligible potentiality. But, in thus realizing itself in an alterity of distinctive acts, the diversity must ever be counterbalanced by the Unity of the type out of which it proceeds.

iv. Again, when manifested in a totality of acts which may be regarded as Parts of a Whole, these parts are made to constitute the Totality by virtue of the one Will which manifests its indivisible integrity therein; and the Type or antecedent unity, which has been the One-in-All, now takes the form of the All-in-One.

v. But, lastly, if the Will be entire in the act constitutive of the Whole, it must, in the opposite relation, be entire in each and every Part;—that is, every Whole and each and every Part must be actuated by the same one and undivided Will.

§ 17. Now it is by the combination of these elements or factors, representing the necessary or “polar” relations of Will actualizing, that we are enabled to form a *Paradigm of Ideal Construction* or genesis. And we will distinguish these relations by the names *Identity*, *Thesis*, *Antithesis*, and *Synthesis*.

Of Will (1) contemplated, as if yet undifferenced, in the identity of its elements,—and (2) of Will contemplated in the Alterity, or differenced into its relations, as thesis and antithesis, namely Subject and Object,—of these relations we have spoken in the chapter on Self-consciousness. But we have here to consider the Alterity of the Will in a larger sense, as the necessary form by which all Will realizes itself, causatively and productively, in the construction or genesis of a Whole of Parts—be it a work of art, a poem, a picture, a piece of mechanism, the Universe itself, or any of the organic wholes which are its component. Pursuing then the topic of the Will in the relation of its productive alterity, we have to assign to it, as the principle of ideal construction, the “polar relations” which constitute its factors or working forces. These we are led at once to consider, without anticipating any objection, are the opposite, yet reciprocally complemental, factors of *Unity* and *Distinction*;—the former working in the relation of the tendency to impress and maintain throughout the process the identity of the Idea which originates the construction; the latter working in the relation of the opposite tendency to diversify and vary the constructive Idea, by enriching it with all the possible forms of being and modifications of agency which may contribute to, without disturbing, the unity of the primary purpose and final aim;—and thus in the relations both of identity and diversity

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these opposite, though correspondent, tendencies work the same Will in and to a product, in which the unity of the Whole and the distinction of its component Parts are harmoniously combined. And such may be regarded as illustration and application of the polar formula, viz. Thesis, Antithesis, and Synthesis. It will, however, be proper to advertise the reader that, in having before him the relations of the paradigm of ideal construction, he will find two forms of Unity and two of Distinction, constituting instead of a single polarity as above a double or what may be called a bi-polarity;—but thus advertised he may best await the explanation until the relations themselves have been exhibited.

Resuming then the consideration of Will in its productive Alterity, and at the same time reminding the student that the process about to be described is only the explication of the self-ponency of the Will, above considered in its relations as Subject and Object, and now to be regarded in its objective aspect,—I proceed to designate and describe the opposite, yet correspondent, factors of ideal construction.

i. The first relation is one of the forms of Unity; and it may be described as the antecedent unity, and designated as the Type of the projected Whole now in process of construction. Whatever the genetic Idea, considered both as power and contemplamen, may be in respect of its purpose and final aim, it operates in this

relation as the factor or tendency which indelibly impresses the one and self-same Type on every part of the intended Whole, and ever maintains the typical Unity of the ideal Whole amid all diversity and every changing variety in its evolution.

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ii. The second and opposite Relation is one of the forms of Distinction; and it may be designated as the Principle of Diversity, or the tendency to re-produce the original type ever as another, though the same, in all possible novelties of form which are compatible with the retention of the constructive Idea. Distinction implies the explication and exhibition of all latent relations of any yet undeveloped Subject:—and hence, as the unbalanced tendency to Unity could produce only a monotonous sameness, it is counteracted in this conspiracy and antagonism of forces by an equal tendency to Distinction by diversifying the original Type.

iii. The third Relation, also a form of Distinction, but claiming a characteristic difference from the last-described, may be named the *Principium Individui*. Its tendency, or the tendency thus named, is to integrate each act of diversity into an Integer, dependent indeed upon the whole of which it is a part, but claiming a relative self-subsistency. It may thus become, or has the capability of becoming, a Sub-Type of the original Type, which it represents in a new form of existence, and may thus be transmuted to a secondary

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centre of a whole, which repeats under varied conditions its progenitor;—and it may be added that such successive cycles of being, ever another though typically the same, alter et idem, may, according to the Idea, be limitless.

In considering the function of the second form of Distinction, it cannot but be seen that the operative factor which has been described as the main element in totalising or completing a whole, namely the Unitive or Integrant, has here assumed the form of the Distinctive, and works in the service of Distinction. As we have had occasion to remark in describing the second form of Distinction, the *Principium Individui* (as we have agreed to name it) operates as the tendency to integrate each and every act of diversity into a relative Integer or Whole in itself—in other words an *Individual*: but in so doing the individualizing tendency would, if not counteracted, produce the separation of the individual from the whole of which it is essentially a part, and thus convert the part into a self-subsistent entity. The appointed and adequate remedy for this illegitimate aberration lies in the fourth relation of ideal construction, to which we now invite attention.

iv. The fourth relation is again a form of Unity, which, for want of a better name, we may call the *Principium* or *Lex Continui*. It is the tendency to counterbalance, or to counteract any excess of, the tendency to diversity; and this by the harmonious adaptation of

every component part to the whole originally projected, and contemplated in the antecedent unity of the type out of which it proceeds. In the primary relation we contemplate the Unity as antecedent and prospective; in the present relation as resultant, or operative to the resulting totality. By the former we are enabled to behold the unity of a causative type, which is One-in-All; by the latter the unity, which is derived from the achievement of the All-in-One.

But as, with reference to the antagonistic relation, I had occasion to remark that, under the influence of the *Principium Individui*, the Integrant or unific force becomes distinctive and assumes the office of Distinction, by potentiating the several diversities into individualities, — so here, *mutatis mutandis*, under the operation of the *Lex Continui* or totalizing process, the *Distinctive force becomes Integrant*, namely, by adjusting the relation of each participant to each other, and of each to all, according to the governing Idea which regulates the rank and proportions the power of the constituents. And thus the *Lex Continui*, even while heightening the distinctive individuality, promotes the union and balanced conspiracy of the several and manifold parts to a compact and coherent Whole.

v. The fifth relation, if it can be properly so called, is the result of the interaction and balanced operance of the four above described

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factors in the fourfold relation which constitutes their bi-polarity of opposite forces ; operative, as we have seen, by the ever present unity of a Type, whose oneness is continually counterbalanced by a perpetual generation and profusion of distinctive forms, and by the modifying influence unceasingly exerted by the opposite yet correlative processes of individualizing and totalizing ; in order to the Synthetic Totality of the organic Whole, in which the Typical Idea, as the exponent of a fontal and causative Will, reveals itself as a living reality in perpetual unity and exhaustive distinction.

§ 18. In a retrospect of the last paragraph it will be acknowledged that the Paradigm of Ideal Construction, such as we have exhibited it, is no less a Paradigm of Spiritual and Rational Integration ;—that is, it shows convincingly in what the ideal perfection of causative Will consists, as guided and directed by the perfect law of Reason in respect of the necessary and absolute *form* of its operance. What the life and substance of this “form” or formula of speculative Reason may be, will appear hereafter connected with the reality of the idea of rational Will already recognised in and by the facts of self-consciousness. That the scheme in question is that of the *Relations of Integration* will be manifest when we consider :—that the first is Integration, by impressing an integral unity of Type on every conceivable part of the whole pro-

ceeding from it;—that the second, or opposite relation, is Integration, by the exhibition of the typical unity in the exhaustive diversity of Distinction;—that the third, or individualizing process, is Integration by the absolute tendency in each to become a self-subsistent whole, or Integer;—that the fourth, or totalizing process, in retort of the individualizing or separative tendency, is Integration by the absolute tendency to reduce all distinctive diversities to proportional parts of the whole affirmed in the antecedent unity of the typical Idea;—and thus it will be acknowledged that the same Principle of Integrity, which animates the genetic Type, impels it to manifest itself in an exhaustless progeny of Distinctions, and at the same time is operative in each and all in order to achieve and perfect the Totality, which is the counterpart and living product of the parent Idea from which it proceeds.

It will be seen, moreover, that those several relative acts are all in principle the same,—each of them, namely, being a Will-act in order to realize in the *moments* what is purposed in the *total process*, unity in distinction and distinction in unity. And it follows that each is thereby rendered capable of becoming, or of being transmuted into, its kindred other. In Distinction Unity becomes objective, and in Unity Distinction becomes subjective. And whilst in the moment of Individuality Unity becomes a form of Dis-

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tion, in order to integrate the parts, in the corresponding moment of Totality, Distinction passes into a form of Unity, which is but the reflux of the Unity which gave birth to the Totality. Thus ever "*idem gignitur alter,*" and the same Will, which appears differenced into forms is recognised as the same abiding substance under all change. And I close with the remark that these acts or moments, whether simultaneous or successive, are essentially above the conditions of Time, and are necessary "forms" of spiritual integration, alike in the fontal and highest Idea, and in all the ideal constructions that may be derived from the *Idea Idearum*.

CHAPTER IV.

DIALECTIC, OR THE POLAR LOGIC, AND ITS OFFICE IN THE CONVERSION OF CONCEPTIONS INTO IDEAS.

§ 1. IT may be assumed that the formula of Polar Logic which we adopt from Coleridge's statement (Common Place Book No. 3) is an adequate description of the Relations, or elementary factors, required in the Polar Logic in order to the conciliation of Opposites and, in perpetuating their distinctions to secure their unity; viz:—

Identity.

Thesis. Indifference. Antithesis.

Synthesis.

It is true that in the preceding chapter the full form of ideal construction has been presented to the reader as a bi-polarity; but all such constructions are fundamentally uni-polar, and become bi-polar only by differencing the opposites, and it will be found that uni-polarity is sufficient for most of the purposes of "polar logic." But it may be borne in mind that, in the ideal construction which exhibits the genetic development of a Principle, every new distinction may call forth a new opposite, and

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therefore that which was primarily an uni-polarity is calculated to be a multi-polarity or system of correlatives. We are here, however, only concerned with the *opposition and conciliation* of the products of the understanding, which have been designated as *Conceptions*.

And it may be added that the above formula, as the Paradigm of Unity and Distinction, is the universal principle of all relativity; for however many the relations into which a One may be differenced, all are but the modified repetitions of the same original form. Compare "Method of Spiritual Philosophy," MS.

§ 2. It may be stated generally that, as long as we move in the reasonings ruled by the logic of the understanding, Dialectic or a conflict of positions is inevitable. It will be found that all such truths of the understanding, or conceptual truths, when considered by the light of ideal truth, are but half-truths. Truth in its integrity embraces two sides or relations; but if these sides or relations, instead of being regarded as relations *complementary* of each other, are assumed to be *exclusive* opposites, the affirmation of either of which is the denial of the other, we miss the whole truth of which they are the components. The Polar Logic is the instrument for disentangling the mind from this Dialectic, which is imposed upon it by the inalienable mechanism of the understanding, as the faculty judging according to experience; and we are only relieved

from it by an appeal to the integral Idea in which the conflicting opposites have a ground of reality.

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And notwithstanding that it would be difficult for a determined partizan to believe an opponent, who holds views diametrically opposite to his own, to be otherwise than absolutely wrong, yet instances may be easily adduced of a conciliatory solution of party strife, as far as conflicting opinions are concerned, whether in politics or religion. Thus "Whig" and "Tory," "Liberal" and "Conservative," have been the watchwords of parties engaged in perpetual hostility; but notwithstanding the apparently extreme opinions (or "principles" as they would call them) of both, it will be found, in tracing the offensive watchwords to their ideal source, that they really mean the two essential elements or principles of every well-constituted state, and which, each implying the other, are necessary correlative factors of its weal and safety,—that they represent, namely, the combined interests of *Permanence* and *Progress*. Separate these twin factors from their legitimate union, and they become, to use an expression of Heraclitus, "portals of death" in the forms of rigidity and dissipation;—the one party perpetuating, or tending to perpetuate, with what is excellent, that which is perishable and worthless; and the other, if unchecked, tending to ceaseless innovation and to the restless chase of untried and

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short-lived novelties. See the Idea further developed in Coleridge's "Church and State."

§ 3. The principle, under which the union or combination of Opposite Relations is effected, is one of universal import. In looking to the unintelligent powers of nature the law will be found universal, that all powers manifest themselves in Opposite Forces. Here, on the other hand, we have to consider the like principle in the form of intelligence itself, and as belonging to self-conscious mind in the acts and process of the Discourse of Reason. And, we might designate the sort of logic now under consideration the *Logic of Reason*. It is the process for disentangling the mind from the inevitable Dialectic imposed upon it by the forms and mechanism of the *Understanding*,—which, as the faculty of reasoning by means of "Conception," is opposed to *Reason*, as the faculty of reasoning by means of "Ideas."

So true is the principle here implied, that, without any conscious appreciation of the aid derived from polar or ideal logic, it has reached and influenced, as we should say by the force of common sense, the ordinary judgements of mankind. Nay, it would seem as if a certain gratification, akin to the pleasure afforded by a witty saying, attended the statement of a truth as a paradox. Thus Fuller—a worthy among "the worthies" he has so ably delineated, in describing "the good Wife," tells us

“She commandeth her husband in any equal matter by constant obeying him.” He adds, “She never crosseth her husband in the spring-tide of his anger, but stayes till it be ebbing-water.” The mode of conciliating the contrary conceptions of “command” and “obedience,” so as to justify an unity of thought combining both, is here sufficiently indicated. But it is not difficult to conceive generally, that to oppose one, who has the power and will to enforce mandates, issued under the red-heat of a fit of impetuous self-will, or sullenly maintained under the sense of offended dignity, would be not only vain, but likely to increase his resistance and obduracy. And, on the other hand, it is to be expected, that to wait patiently “till it be ebbing waters,” to bear meekly the insolent provocations of fitful moodiness, and to cultivate the habit of yielding even to unreasonable assertions of supremacy, cannot fail to beget in the lordly claimant a confidence that the pride of power and the jealousy of authority will not be encroached upon by rebellious resistance, and may favour occasions of cooler and calmer temper for the exercise of those winning arts of persuasion which a loving wife knows how to use and profit by, especially if aided by the regret of a fond husband consequent upon a sense of his abuse of power. And thus “the good Wife,” in learning to rule by submission, may teach us to reconcile and unite the contrary conceptions

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of Command and Obedience, with the just expectation of a marital peace perpetually ratified by mutual forbearance and concession.

Again, it is put forth as a maxim that "Credulity is the strength of a child." But to believe everything is mere Weakness:—how then without contradicting ourselves can we say that Weakness is Strength? We may be reminded, however, that to believe nothing would be analogous to a case of congenital blindness;—the faculty either of sight or intelligence, would be deprived of the very conditions, under which it attains to the due performance of its appointed office. The Child needs both the exercise and the materials of thought in order to acquire vigour of intellect, and the only conceivable mode of acquisition is a belief, even to the excess of credulity, which leads him to take on trust whatever is communicated to him. Doubt is, or ought to be, the after-process; for to begin by doubting is to refuse our intellectual food, and to insist upon intellectual inanition. But the polar logic teaches us that, although Weakness as Credulity is put in contradictory opposition to intellectual Strength, the two opposite conceptions may be united in the "Idea" of invigoration by indispensable submission to the influences of nourishment and excitants from without.

We may not unfitly introduce here by way of illustration the *dictum* of Aristotle, that, Every virtue is *the mean* of two contrary vices;

ex. gr. : that courage is the mean of recklessness and cowardice. It may be said generally that a mean *partakes* of two things, or attributes of things, opposed to each other, and may supply a balance which tends to prevent the excess of either. Over-daring easily passes into recklessness of danger, and over-caution into timidity ; but courage (when genuine, that is) boldly confronts a danger, but duly counts the cost of attack or defence, guards against excess in either direction, and *combines* prudent caution with unquellable daring. But it is to be observed that the *dictum* of Aristotle is not so to be understood, or so to be accepted if such were his meaning, that courage (as the example of virtue generally) is a combination of its possible excesses ;—it is not a “synthesis” of recklessness and cowardice, but of two opposite *tendencies*, each of which, if unbalanced by the opposite and countervailing tendency, would necessarily become the excess which is designated as a Vice.

§ 4. Without entering further into the distinction which Coleridge has drawn between Reason and Understanding, it may suffice to quote the following from his “Aids to Reflection ;”—“Understanding in its highest form of experience remains commensurate with the notices of the senses ;”—[or rather, I should say, with the notices of the inner and outer sense ;] —“Reason affirms truths which no sense could

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perceive nor experience confirm. Yea, this is the test and character of a truth so affirmed, that in its own proper form it is *inconceivable*. For *to conceive* is a function of the Understanding, which can be exercised only on subjects subordinate thereto. And yet to the forms of the understanding all truth must be reduced, that is, to be fixed as an object of reflection, and to be rendered *expressible*. And here we have a second test and sign of a truth so affirmed, that it can come forth out of the mould of the understanding only in the disguise of *two contradictory conceptions*, each of which is partially true, and the conjunction of both conceptions becomes the représentative or expression (= exponent) of a truth beyond conception and inexpressible. Examples: Before Abraham *was*, I *am*.—God is a circle, the centre of which is everywhere, and circumference nowhere.—The Soul is all in every part.” *

§ 5. In order to render the import of the above quotation fully intelligible in its bearing upon the whole argument, it will be desirable to recal the reader’s attention to the truth already stated, that the so-called “Categories of

* It may be right however to apprise the reader that, as I have shown in greater detail elsewhere, I do not accept the latter part of the extract without considerable qualification; for if it be in the main true that spiritual truths cannot, strictly speaking, be “conceived” (*i.e.* that they are not “generalizations”) yet it is scarcely consistent to say, as Coleridge does, that such truths must be conceived and yet are “beyond conception and inexpressible.” (See foot-note at page 258, and also § 11.)

the Understanding" are undeniably principles of Speculative Reason. And the additional evidence, which I propose to offer, will better enable the reader to satisfy himself how the Dialectic in question arises, and how the Contradictions, in which it consists, may be effectually resolved into truths of Reason.

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Our argument throughout assumes and implies that the Reason, as the organ of spiritual truths, is the opposite or countervailing power to the Understanding, and by its inherent tendency to Ideal Integration turns at once from the merely empirical to those truths which transcend all experience sensible and psychical. Reason contemplates, in that which is under the conditions of Space and Time, that which is boundless and eternal; in a world of flux and change, the permanent and immutable; in a world of relations, the supra-relative; in a world of dependencies, the unconditional and absolute; in a world of imperfections, the integral and perfect.

It will not be out of place here to remark that, in most of the above instances (and others might be mentioned) the terms used are *Negations* of the empirical forms from which they are derived. Nor is it to be wondered at that the human mind should thus afford evidence of its struggles to release itself from the bondage of the senses, and from the tyranny of appearances, in its aspirations after higher truth and

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insight of true being. Thus in such terms as eternal, absolute, infinite, ineffable, inconceivable, incomprehensible, and the like, as they apply to spiritual truths, the Reason assumes a *negative* character:—but in its proper and positive character, though here still considered as speculative or simply intellectual, it is the *power of Integration*, of beholding the Absolute and Perfect, and of integrating thereby the merely relative and imperfect forms of Experience.

§ 6. It will be recollected that the so-called Categories were introduced to the reader in the first part of this essay as Concipiencies or Forms of Conception, indispensable in the acquirement of experience sensible and psychical. And though it was then suggested that they were in truth Forms of Reason, and only intelligible as supersensuous principles by its light, we may now, after the investigation of Will as the source of spiritual knowledge, proceed with the confidence that the requisite explanations will be fully comprehended. It is then here again affirmed that the Categories are really forms of Reason or speculative truth;—that, when used in the service of the understanding, they are only applicable to Conceptions, as generalized from the notices of the senses, or as derived from psychical changes; but that under the dynasty of Reason, to which they properly belong, they assume the higher potency or power of designating the *modes of*

conceiving Spiritual Realities and supersensuous Verities. PART II.
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Thus *Substance and Accident*, as used by the Understanding, is the concipiency of the *co-inherence* of attributes or qualities, which we attribute to any total impression conceived as an Object and represented as an unity of thought by means of a generic name. But, for the Reason, Substance is a *Noumenon*, a spiritual and abiding *οὐσία*, opposed to its manifold and changing *Phænomena*: and as we have found in the investigation of self-consciousness it is derived from the Idea of "Will," recognised in ourselves as the essential condition of our spiritual reality, and contemplated by the Reason as the universal ground of Being.

Again, the category or concipiency of *Cause and Effect* is used by the Understanding* as the indispensable mode of conceiving an invariable connexion, dependency, or sequence of two phænomena, of which one is described as the Antecedent, and the other as the Consequent.* But, for the Reason, the Causative, instead of being the expression of mere antecedency or primacy in order of thought, is the essential

* The notion of Time in the relation of Antecedent and Consequent has produced an unnecessary difficulty even from the point of view of the Understanding: for the designations of Antecedent and Consequent, properly conceived, are derived not from sequence in time but from *order of thought*, that is, by assigning primacy to the antecedent, and dependency to the consequent;—it is a question of *rank* and not of *time*.

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Principle of Origination and absolute spontaneity which we name "Will," opposed to "Effects" which are the objects of experience and the outward signs derived from the supersensuous originant. It will be found then that the Idea, indicated by "Cause" or the causative, is but another aspect of the same idea, which we contemplate in "Substance;" and that the spiritual truth, when ideally integrated, is that which is enunciated in the position "Absolute Will as causative of all reality."

Thirdly, the category of *Whole and Parts* is conceived by the Understanding as a sensible Whole, the sum of whose parts constitutes its Totality. For the Reason, on the other hand, a Whole is the result of a Power, or antecedent Unity, which is productive and conservative of the sensible sum total of parts, and is whole and entire in each and every part.* It is for Reason the great principle of *Unity and Distinction*, of which we have exhibited the factors in the Paradigm of Ideal Construction and genesis (Chap. iii. § 17.) And here again it will be found that we are really contemplating, though in another phase, the same great Idea as before. In "Substance" we regarded it as the permanent and abiding *οὐσία*, in "Cause" as the genetic and originant. And now in the "Whole and Parts," we regard it as manifested and

* As the schoolmen say, "*Ubi anima est, tota est, tota in toto, et tota in quâlibet parte.*"

realized in a sphere of organic being, in which the Idea, as causative power, abiding substance, and constitutive energy, is evolved and set forth in its unity, totality, finality and permanent efficiency. Vital Dynamics, Preface, p. xxv.

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§ 7. If then Reason is compelled to adopt the language of the Understanding;—and such is unavoidably the case; for we have no other language than that which consists of Words expressing Conceptions which are generalized from the notices of the senses and from empirically observed psychical changes;—and if the meaning intended to be conveyed have reference to supersensuous truths, of which the Understanding can take no cognizance, except in its own empirical forms, wholly unsuited to the exhibition of spiritual truths;—then, I say, it cannot fail that, in the attempt to express what is spiritual in language, which is suited only to objects belonging to empirical cognition, *contradictions* will arise. “And yet,” as Coleridge truly says, “to the forms of the Understanding all truth must be reduced, that is, to be fixed as an object of reflection, and to be rendered expressible;”—in other words spiritual truths must be submitted to the categorical moulds of the Understanding, but in undergoing the process “they come forth in the disguise of *two contradictory conceptions*.” The Reason strives to express, or to obtain the exponent of an Idea; but the Understanding or logical faculty can

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supply only conceptual forms; and the Reason, in order to obtain the exponent it needs, uses conceptions, which, in contradicting each other, suggest the ideal truth aimed at.

It may be remarked, however, that Coleridge*

* Coleridge's statement (that an "Idea" appears in the disguise of two contradictory "conceptions," but is itself "inconceivable and inexpressible") seems to require elucidation; especially when coupled with a previous assertion that ideas must be conceived in order to be objects of reflection, *i.e.* of thought. Perhaps C.'s view might be more clearly and correctly stated.

"To conceive" is a function of the Understanding, *i.e.* of the subjective mind:—it is the universal and necessary form of "thinking," of every intellectual act of conscious presentation:—to conceive is to "generalize" and "name," that is, to refer to the proper genus or kind whatever may be affirmed to be the result of experience.

The question to be considered is, in what relation does an Idea stand to the Understanding so defined? If we can only think by means of "conceptions," it would necessarily include the thinking of Ideas and by *means of* Ideas: but this implies that Ideas are "results of experience." Is this so? We have throughout repudiated the notion of an "idea" being a result of experience, and have contended that it is a truth of Reason *à priori*, and not empirical or *à posteriori*.

Now in order to obtain a sound view it must be borne in mind that if every logical act be necessarily a "conception," and therefore would include an "idea," and yet that an idea is not to be deemed a *result* of experience, it may turn out that "experience" is here an equivocal term, meaning, on the one hand, that which is *empirically* derived, and on the other that which is *spiritually* derived. With this proposed distinction empirical experience would consist of conceptions representing the impressions of the outward senses and the notices of the inner sense; while spiritual experience would consist of conceptions, arising from *reflection* on the *formæ formantes*, the *à priori* powers, which are original and inherent in our mental and spiritual constitution.

Now what is, briefly, an "Idea"? It is a spiritual act of rational Will, which may be described as genetic and integrant, and which depends upon the power communicated by the Logos to enlighten and enliven the human mind thereto. We may be said to be inspired by the divine Reason in and by those specific acts which we call Ideas. They are or operate in us, but are not derived from ourselves: but when they act in us, we become conscious of their operance, they become objects of

calls such a truth "beyond conception and inexpressible;" which sounds paradoxical, and seems inconsistent with the statement previously made, that they must be "conceived" in order to be objects of reflection: but although it is quite true that such spiritual verities (Ideas) are in their own form and proper force "inconceivable" and "inexpressible," — for they are "spiritual truths spiritually discerned," and can

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reflection, and this by being "conceived." We thus have, or form, a conception of an Idea; but the Idea is not itself a conception, but a power of intelligence, which exists independently of the human mind conceiving it and actuated by it.

That we do so conceive of an Idea is a fact. For we have had experience of it; and we refer its operance and forms of operance to their appropriate sorts and kinds under an appropriate name or designation. Thus we recorded our "conception" of the Idea *κατ'ἐξοχήν* in the Paradigm of Ideal Construction. But we have found that the *formæ formantes* of this ideal construction present themselves in the so-called Categories, enumerated under the heads Substantiality, Causality, Unity and Distinction; and therefore (when understood spiritually) that ideas must be considered under one of these heads.

Thus when an Idea is conceived, it is thereby referred to its right genus or kind, and so with respect to all spiritual truths or experiences: But, although we must have a conception of an Idea in order to "understand" it, the conception or thought of a thing is not the thing itself, not the reality, but the mental representative of that reality or real thing. Hence, though we have a conception of an Idea, an Idea is not a conception because a reality, and in this sense may be said to be "inconceivable." Though I cannot but think that the term is at least equivocal, since not to conceive it would be the unavoidable mode of not understanding it, or of its not being an object of thought at all.

But, according to Coleridge, when conceived, it comes out of the moulds of the Understanding in the *disguise of two contradictory conceptions*. True! as our examples undeniably prove. That is, when expressed as empirical conceptions, they conflict; but when understood spiritually, or as conceptions derived from spiritual experience, they become *correlatives*, or complements of each other. How this is to be satisfactorily explained, is considered in a succeeding section. See § 9.

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be only truly apprehended in and by the light of Reason,—yet, in as far as they are, and must be, distinct objects of thought in the mind of the subject reflecting upon them, they must be “conceived,” and they can be conceived only in the forms afforded by the categories or concipiences of the Understanding. But it is ever to be borne in mind that the conflicting conceptions so obtained are not real, that is, irreconcilable contradictions. They are “in the disguise” of contradictions; and as soon as the categories are apprehended in their spiritual significancy, the contradiction vanishes under the influence of the intermediating Idea, and the hitherto apparently antagonistic factors are reconciled as correlatives of the same truth.

Hence then it may be affirmed with truth that, in this Dialectic, a truth of Reason, when expressed in the forms of the Understanding (and only such are available), must be conveyed by contradictory “conceptions;” and that we reach the apprehension or obtain the “exponent” of that which in its own form is inconceivable and inexpressible, by means of Opposites, which would exclude each other, were they not comprehended in a higher truth which includes them both. That the collision between conceptions and ideas should take place in the application and use of the Categories, is only what might have been expected from the fact that

they are the forms at once of spiritual intuition and of empirical and mediate cognition, in and by which (Conciency being enlightened by Reason) ideas become forms of conception, and conceptions are converted into the ideas from which they originated.

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If then the Reason is compelled (and such, I repeat, is the fact) to use the language of the Understanding in conveying its meaning, and this a meaning which is opposed to that of the understanding, it cannot be otherwise than that contradictions arise, which it is incumbent on the Reason to correct. Thus, to take two of the examples which Coleridge has supplied, and which relate to forms of Sense, namely, Time and Space. The first is:—"Before Abraham was, I am:"—in order to express in the language of Sense that which is eternal, *ἄχρονον*, timeless and above time, it must be said, the Eternal is that which is at once Past, Present and Future, or that which is ever Present in the endless Past and the endless Future;—a contradictory puzzle on which the mind entangled in the mazes of the empirical faculty might for ever muse, were it not for ideal truths, which are under no conditions of time, the same now, yesterday and for ever. The second, to which I allude, relates to Space, and is thus worded:—"God is a circle, whose centre is everywhere and circumference nowhere." Truly a magnificent account of an impossible circle, were it not that thereby the idea is

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awakened of a Spiritual Omnipresence, whose power and operance transcend the conditions of space.

§ 8. Let us pass to the problems, which are offered by the Categories. 1st. *Substantiality*. If I have to state what "Substance" is for the apprehension of Reason in the language of the Understanding, I might say, "It is that in which the properties which constitute the conception of a sensible Object, coinhere, but which is itself no possible object of sense or cognition; or I might say, "It is that which remains as the Object after all that makes it an Object has been removed." Contradiction can scarcely go further: but for Reason there is no contradiction in positions such as these; for if, as I have contended, Substance be essentially Will, or derivatively from it a principle of life, or any self-hypostatic power, it would remain as the counterpart or correlate of all sensible manifestations, even although these were abstracted. The category in its spiritual significance (see § 6) means that "Substance" is a *Noumenon*, a spiritual and abiding Ousia, opposed to its manifold and changing *Phænomena*; and, as we have found in the investigation of self-consciousness, it is derived from the Idea of Will, recognised in ourselves as the essential condition of our personal reality, and contemplated by the Reason as the universal ground of Being.

Hence the Idea of "Substance" in its spiritual

significance, as the universal ground of Being, reconciles the conflicting positions, in which Noumenon and Phænomenon, Substance and Accident, a Thing and its Properties, are put in any exclusive opposition to each other:—for if the Understanding says, “It is either,” or “It must be one or the other,” Reason replies, “It is and must be both.” And thus too the often-quoted adage “*Alter et Idem*,” without offensive admixture with the creed of Pantheism from which probably it was derived, and although expressing apparently the self-contradictory position that “what becomes another remains the self-same,” is perfectly justified in the eyes of Reason under the Idea of a Spiritual Ground, which necessarily implies both. In the philosophical use of mythology, the God Proteus was aptly considered to be the principle of all things, who under ever-changing forms, remained in spite of all mutations always one and the same self-modifying base of being and existence. And without admitting the incontrovertible truth which is contained in the adage “*Alter et Idem*,” how could we assure ourselves of our own *personal Identity*, or affirm our consciousness that amid the ceaseless change, corporeal and mental, in which we are hourly becoming *another Self*, we yet preserve in unchangeable *identity the Self*, which as it came from, so will be restored to, the heavenly Father in whose image it was originally created.

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2d. *Causality*. Relying upon empirical facts, the human mind cannot avoid the conclusion that every event is necessitated by an antecedent condition, which we call "its cause." But, on the other hand, the human Will, conscious of its power, rebels against a doctrine so uncongenial to its own nature, and under the sense of freedom asserts the doctrine of its own spontaneity. But in this assertion the Reason in man feels the contradiction, which it involves, between Liberty and Necessity; and, whilst clinging to the belief in his free will, man is sensible of the evidence both in the moral and physical world of the operation of laws against which he vainly contends. How then is this contradiction to be solved? If actuated by the Idea, which is calculated to remedy it, he may express the discovery in the enigmatical language of the understanding, in saying that "*Necessity is the indispensable condition of Freedom*;" and the consideration, that lawless spontaneity is the bane of rational freedom, would aid him in removing the obscurity of the problem. The Idea, in which the apparent contraries of Liberty and Necessity find their reconciliation and unity and become veritable complements of each other, is that of *Will enlightened by Reason*. Law in its highest form of Necessity is Reason, and Reason is Truth intuitive, self-evident, necessary. And it is in the identity and unity of causative Will and regulative Reason, that we contemplate Will

that is to itself a Law, that is, Freedom and Necessity identified.

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Under the contemplation of this Idea all the contradictions imposed by the Understanding under this category may be satisfactorily solved according to their order and degree. Throughout the vast chain of *physical causation*, in which every link of dependency is rivetted to its antecedent, Liberty is relatively potential and latent; but yet, as we have found, in interpreting causality according to the Idea, we are compelled to assume the "idea of Power," as rendered intelligible by Will; and even in creatures far below intelligence, the existence of spontaneity must be assumed, as testified by their peculiar susceptibilities, and by correspondent impulses to act under the excitement which provokes the agency. Everywhere we find an analogon of Will, if not rather the evidence of a spontaneous agency, which is derived from Will as the universal ground of living nature.

In order to convey truly what Causation is for the Reason, though expressed in the language of the Understanding, I must say, wherever the question of the free agency of the Will is implicated, and in order to rid myself of the consequences of an invariable and necessitated sequence,—I must say, that the sequence, though considered as unalterable, must be conceived also as a perpetual beginning *de novo*, that is, as a necessity which is also a spontaneity.

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It is too in contemplating the universal conditions of physical causation that the question again meets us in the form of a *First Cause*, and of the grounds of its assumption. The law of causation in nature implies, as we have seen, for the faculty judging according to experience, a necessitated chain, an endless series, without the possibility of integrating it by any absolute beginning. The instincts of Reason lead the human mind, however, to attempt the solution of the problem by assuming a "First Cause," originant and predeterminant. But this primal Causative, being assumed only as the first link in the chain of dependents, falls therefore under the law of causation, which it was intended to rectify and complete; and unless causation is something other and more than necessitated concatenation, the assumption is tantamount to the assertion that *the Originant is the first necessitated link in the chain*. It is no doubt a palpable contradiction in terms, derived from the language of the understanding, and really says that the Antecedent is a Consequent. But the position, when measured by the Idea represented by it, means not only what is perfectly compatible with truth, but conveys the profound principle of "The Absolute Will, causative of all reality, and there inclusively of its own;"—and the reader, undeterred by the fresh contradiction contained in the phrase *causa sui*, cause of itself, derived from itself, as it were

saying that a father is his own son, will only find the exponent of the Idea of Will in the act of self-ponency, and will see a striking illustration of the Dialectic now under consideration.

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In like manner, if we turn our attention to *moral causation*, the links in any historical chain of events may be explained by the historian as each having its causes and conditions in the preceding; but the links in this concatenated series are truly *moral* agencies, and therefore each link contains its own spiritual conditions in the free will of the agent. Again in the phrase, used in our Liturgy, "whose service is perfect freedom," there is a contradiction in terms; but when it is shown that true freedom can consist only with entire obedience to the Will of God, or under the universal conditions which divine Reason imposes, it becomes a self-evident truth that he only is free who voluntarily submits to these conditions, and that he who freely wills is free.

In like manner it is only by an Idea that we can reconcile the conception of the operance of a Special Providence with that of Human Free-Agency. It is said, and said truly, that the very hairs of our head are numbered, and that not a sparrow falls without the permission of the all-wise Disposer of events. But how, may we ask, can a government, which extends to the shaping of the smallest event, be compatible with individual freedom of Will? Or on the

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other hand, how could we conceive the perfect adjustment of a whole of moral agencies, in order to a final purpose, unless guided and governed by divine power and wisdom? In proposing these questions we seem to be pressed under the weight of a dilemma, which bids us decide, under the penalty otherwise of self-contradiction, that the affairs of this world are the results either of Divine or Human Will. And from this dilemma we should not be able to extricate ourselves without the healing influence of an Idea, which may conciliate and preserve the claims of both. For let me ask the reader, what is human Will unless it concur and co-operate with the Divine Will? And this it may, by obedience to a Will which is revealed and made known by the light of Reason in the conscience. If man act in concurrence with the divine Will, he cannot fail to carry into effect the designs of Providence; but if, on the other hand, he should lift his own self-will against the almighty Disposer of events, and vainly strive against Omnipotence, what else can be the result but the baffled vanity and nothingness of the attempt? *Homo proponit, Deus disponit.*

I do not pretend to remove the many difficulties which are connected with this subject, involving, as it does, the momentous topics of the state of man, as fallen and probationary, of the conflict of good and evil, and of the final con-

quest of the latter in the process of redemption —topics, which will engage our attention in a future stage of our inquiry. But I venture to insist upon the Idea (although offered here only in the way of illustration) of Divine Will; which, as the “Providence” of the world, may be regarded as the complementary fact or of human Will; but which otherwise could be contemplated only as an unalterable destiny of man in the tragic colouring of a “fixed fate,” irrespective of his moral exigencies as an individual Will.

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3rd and last, *Totality*. This, as exemplified in Coleridge’s position, “that the Soul is all in every part,” belongs to our third category, or that of the Whole and its Parts. Now in the case which Coleridge has adduced, or in any similar instance in which an Idea is and must be expressed in the language of the Understanding, I am unavoidably under the necessity of combining terms or conceptions which contradict each other. I should be obliged to say that the Idea of a Totality, or that which combines Unity and Distinction, is “a Whole which is entire in every part.” It is evident that, for the faculty judging according to experience, this is a blank contradiction; since it is tantamount to affirming that each part is equal to the sum total of all the sensible parts. But the light of Reason dispels the puzzle; for the Idea of the Totality, which it reveals, is not an empirical result, but an antecedent and living

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Unity, which must act *totally*, in the whole which it projects, and in every part which it produces and disposes, as the One and indivisible Spirit, which pervades, and acts in, each and all of the components.

Examples, suited to illustrate the principle here in question, have been adduced elsewhere. But let the reader bring before his mind the familiar instances of constructive genesis which daily meet his observation in the products of living nature. In looking at the manifold and interesting varieties of Plants and Animals, he cannot but acknowledge that each various sort is distinguished by its characteristic Type of construction, and that this Type is, was, and ever will be, the pattern according to which the plastic agent works, both in the organic whole, and in every component part;—and he will as little hesitate to confess that the *unity of purpose* contained in the type or pattern, in fashioning the whole, cannot fail to mould every part in harmony with the whole of which it is a constituent, and that in so doing the same unity of purpose must be whole and entire in each and all. And thus, says the celebrated Cuvier:—
“Tout être organisé forme un ensemble, un système unique et clos, dont les parties se correspondent mutuellement, et concourent à la même action définitive par une réaction réciproque. Aucune de ces parties ne peut changer sans que les autres changent aussi: et par con-

séquent chacune d'elles, prise séparément, indique et donne toutes les autres." Rév. du PART II.
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Globe, p. 95.

§ 9. Thus, then, as we have endeavoured to show, when an Idea is expressed in and by *empirical* conceptions, these conceptions conflict; but when the same conceptions are understood *spiritually*, or as conceptions derived from spiritual experience, they become *correlatives* or complements of each other. In order to the satisfactory explanation of this seeming paradox, let the reader be advised, that the Categories or Concipiencies, so often adverted to, are used in a twofold sense, as moulds of the understanding, and as forms of Reason, viz:—1st, in the service and with the meaning of sensible and psychological experience;—and 2ndly, in the service and with the meaning of ideal or spiritual experience; that is, by minting conceptions representative of the intellectual *formæ formantes* which are inherent and *à priori* in the Speculative Reason as a constituent of the human mind. In the first case the conceptions conflict, when they are used to express or represent truths which transcend the faculty judging according to sensible or psychological experience. In the second case (when these conceptions are derived from spiritual experience, that is, from the *reflection* of the mind on its own inherent and original powers) they are reciprocally the complements of each other.

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And it is to be observed that the polar relations, which mark the character of this correlation of opposite conceptions, arise not out of the Understanding, but out of the necessary form of the idea:—for *Reason* implies the *Polar Form*, for the indispensable purpose of securing what is essential to its nature, namely, *Unity and Distinction*; and this will have been accomplished when a *genetic One* distinguishes itself into the correspondent factors, *Integral and Differential*, and produces a *Totality* in which the Distinctions are preserved whilst the Unity is ever secured. And it may be added that, if we contemplate the Idea *eminenter* or at its absolute height, the genetic One obtains its full significance and intelligibility in the identity of Will and Reason; this identity manifesting itself in its dynamic co-factors or correlatives, as Thesis and Antithesis; Reason in the form of Will, or Distinction in Unity; and correspondently thereto, Will in the form of Reason, or Unity in Distinction:—or we might say as descriptive of the first “*Distinctio se cohibens in Unitate*,” and of the latter “*Unitas se exhibens in Distinctione*:” —whilst in the Synthesis or Totality, we contemplate the living perpetuity of Unity in Distinction, and of Distinction in Unity.

§ 10. But in thus claiming for the moulds of the Understanding the prerogatives of Reason, and in detecting in them (as we have shown here and on former occasions) the unmistakeable aids

which the light of Reason has implanted in man, in order to enable him to behold and apprehend intuitively the necessary and self-evident truths which are the great privileges and essential characteristics of his Humanity, we may worthily and fitly bring our investigation to the close which our inquiries in this chapter may have led the student to expect, by pointing out that the Idea, which the concipieny of *Substantiality* discloses, when interpreted in its spiritual sense and significancy, is that of the Will contemplated as the *absolute ground of all-being*;—that the Idea, contained in the concipieny of *Causality*, interpreted in like manner, is that of the Will as *absolute Causality*;—that the Idea, in which the concipieny of *Totality* or of a *Whole* and its *Parts* is grounded, is that of the Will as the *Realization of absolute Unity and exhaustless Distinction*. It will not be necessary again to remind the reader that the Idea of Will, so conceived, whether as the absolute ground of all being, or as absolute causality, or as both in absolute Unity and Distinction, is the same Will, and has for its indispensable condition the inseparable union of causative and originative Power with Reason as the highest form of intelligence; and that so conceived, and appearing in the several phases above specified, there is but one ultimate ground, namely the WILL, as the absolute Idea, and the sole and fountal Principle, of Speculative Philosophy.

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§ 11. Before concluding this chapter, I owe it to the reader to state explicitly that I cannot acquiesce altogether in the view propounded by Coleridge in the quotation introduced in § 4 of this chapter. It may be a question, indeed, whether in comparing the statement with explanations offered at other places in his works, it ought to be taken so absolutely as it is here affirmed; but, in saying that “to the forms of the understanding all truth must be reduced, that is, to be fixed as an object of reflection, and to be rendered expressible,” and in then adding, “And here we have a test and sign of a truth so affirmed, that it can come forth out of the moulds of the understanding only in the disguise of two contradictory conceptions, each of which is partially true, and the conjunction of both conceptions becomes the representation or expression (=exponent) of a truth beyond conception and inexpressible,”—it can scarcely be denied that the statement is at least paradoxical. With the aim, therefore, of rendering the statement more exact, if not more true, and of avoiding the paradox that a truth, which is inconceivable and inexpressible, must be conceived in order to be expressed, and can only be conceived by means of two contradictory conceptions, I have ventured to say, and have attempted to show, that although an idea, or truth of reason, must be “conceived” in order to be an intelligible object of reflection and reasoning,

yet, if conceived under the form of the categories in their *spiritual* significance, such a truth may be conceived and expressed without contradiction. I need not repeat that the contradiction arises from the use of the categories to express a spiritual truth by means of empirical conceptions, and that the categories or concipiencies have a twofold sense, empirical and spiritual.

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There is another point, also, in which I have ventured to offer a different account to that of my honoured master,—that, namely, of the nature of the *distinction between reason and understanding*; though perhaps the difference does not amount to more than respects the definition of the logical term “kind.” Fully agreeing with him in the extreme importance of drawing a distinction between Reason and Understanding, yet I hesitate to adopt unconditionally what he has broadly stated in the “Aids to Reflection,” that the Reason differs *in kind* from the Understanding. For, although it may be true that they do not fall under the same predicate, or predicates, and may both be considered as species of the genus “intelligence,” we gain so little, if indeed anything, by this merely logical treatment, that it appears to me greatly preferable to consider the Understanding as the “Discourse of Reason,” and as the form of intelligence which is adapted to the purpose of acquiring and moulding empirical knowledge, and this by means of forms (categories) borrowed from the

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Reason. And I dare hope that I have shown that these forms are forms of Reason, and are essentially forms of spiritual experience, that is, of knowledge derived from reflection on the inherent powers of the conscious self, spiritual and intelligent. Hence then it appears to me, that the Reason is not to be opposed "in kind" to the Understanding, but is far rather to be considered as the supplement and complement of the latter, and intended to correct the errors and supply the deficiencies of the understanding, in order to the integrity of human intelligence. If we were to judge of supersensuous truth by a faculty adapted only to sensible experience, and were finally to rest on its decisions, we should ignore and neglect the higher faculty of Reason, which is intended to light us to the discovery and contemplation of spiritual truths; and we should reduce ourselves to a partial and abstract, and consequently erroneous view, of those great truths which it constitutes the essential character of our humanity to possess. We cannot, indeed, in "reasoning" upon such truths, forego the use of the understanding, as the form and canon of logical thinking; but, at the same time we may convince ourselves of its inadequacy by the partial and contradictory results, which only we are enabled to obtain from a faculty destined to serve, not usurp the office of, Reason.

§ 12. In connexion with the foregoing, though

perhaps enough has been said on the subject, I am tempted, before closing the chapter on Dialectic, to make some further remarks on the alleged conflict of the *attributes of being*; in respect of which, especially when applied to the *Supreme Being*, some grievous mistakes, arising from neglect of the principles of our Dialectic, have been committed, and these to the detriment of philosophy and religion. The attention of the reader has been already drawn to the subject, ex. gr. on the use of the term "Absolute," Chap. iii. § 11; but its importance is a sufficient apology for the additional notice here proposed, even although some repetition may be unavoidable. The source of the errors here mooted is that in some philosophical schools it has not been observed that a certain class of terms, which are significant of, or meant to designate, what is above or beyond "relations," are in truth "relative terms," and have no intelligible meaning as applicable to realities, except when opposed to, and conjoined with, a correspondent and correlative term. Such are "Absolute" and its correlative "Conditional," "Transcendent" and its correlative "Immanent," "Universal" and its correlative "Particular," "Infinite" and its correlative "Finite," with some others of like character. Nor is it difficult to see that it is the faulty use of the understanding, to which the error in question is chargeable; namely, to treating an abstract conception, intended only for the

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use of the concipient, as the representative of a somewhat real and existing.

The foregoing observations will be, I think, fully justified by a brief analysis of the conception of the "*Absolute*," or of that which is conceived to be "absolved from," and raised above, all conditions. It is scarcely necessary to protest against the use of such a term as "the Absolute;" since grammar teaches us that, being an adjective, it requires a noun substantive to give it a consistent meaning. And yet when we find in some schools of philosophy, of which the Neo-Platonic and German are notable instances, the attempt to conceive an *absolute One Ground*, which transcends all possible distinction in itself of being and intelligence, it induces the belief that the term has been employed in a sense, which can only suggest the straining after a notion of something incogitable. Without entering into details which are here unnecessary, but referring to the "paradigm of ideal construction" given in Chap. iii. § 17, I may remind the reader that the Idea of Will (i.e. Will enlightened by Reason) necessarily implies the process and result of evolution into a living and organic Whole at the utmost conceivable height and perfection of Unity and Distinction. But the height at which nothing higher can be conceived or imagined implies a *One* (principle) which is *absolute*; both as antecedent unity, containing and producing the absolute fulness

of distinctions and distinctive relations, and at the same time as the absolute integrant or unific, throughout the process, of all the distinctions which it produces;—and thus absolute in unity and distinction, the intensity of the former is always and ever counterbalanced by the exhaustless character of the latter. Nor is it of slight importance for the student to bear steadily in mind the *dynamic* character of the process, and that the factors are not to be conceived as mere results or unexplained *data*, but as co-efficients and forces working always under the condition of a balance;—for otherwise the insuperable necessity of the correlation of the factors, which we may call *integral* and *differential*, would be inexplicable; though, when the factors are found to be forces, it is self-evident. And thus, as I have said elsewhere, under the idea of a necessary balance, “every organic whole, from the polyp up to man, indicates a higher and more effective power of unity, and therefore of more perfect individuality, in proportion as the parts are more numerous, yet at the same time more various, each having a several end.” *Vital Dynamics*, App. p. 59.

But if, on the other hand, neglecting the principle of ideal Dialectic, or ignorant of it, the Understanding deals with the Absolute, it can do no more according to its prescribed office than form a conception or definition thereof, as that which is wholly unconditioned, and beyond all

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conditions and relations in respect of itself and others. But should it impose this otherwise legitimate conception on philosophy as a *principle*, there may be readily anticipated what cannot but arise from the adoption of an abstraction which is a mere counterfeit—that philosophy, in taking for a principle what is wholly undifferenced and without recognisable distinctions, has embraced a shadow, a blank unreality, equivalent to Null. Again, the understanding is no doubt competent to deal with the distinctive differences and relations which constitute the conception of a Whole, as we have seen under the category of a Whole and its Parts; but here, failing to discover the abiding substance and connecting principle of the union, it leaves us with the unanswered question, what is it from which the manifold relations derive their meaning and intelligibility.

Hence then it will be seen that a One without distinctions is as unintelligible as distinctive differences without that which gives them unity, and that the intelligibility and correspondent reality of both depend upon the Idea which combines them. Thus the “Absolute” becomes or is a relative term, and only intelligible as the correlative of the distinctive manifold of being in which the undifferenced One is manifested. And the “absolute,” contemplated in this correlation, may signify the “supra-relative,” as raised above all finite relations of being and

actual existence, and may designate that essential attribute or characteristic of Supreme Being which expresses its transcendency to all forms of relative being;—every such form, under this aspect, being considered a relative, conditional and so far imperfect, representative of that which, in the one Supreme Being, is absolute, unconditional, and perfectly realized.

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In connexion with the foregoing, it seems obvious to inquire, whether a similar correlation may not be found in the supposed antagonism of “Immanent” and “Transcendent,” as attributes of Divine Being. In opposition to the doctrine attributed to believers of the orthodox creed, it has been strongly urged by German Pantheists, that Deity is not “transcendent” but “immanent;”—that is, that there is not a God, who, as Creator and Legislator of the world, is to be contradistinguished in personal being and attributes from His creatures; but that Deity, as the ever indwelling and abiding Ground of the Universe, manifests itself wholly and perpetually in an infinite succession of changing and varied forms of being. Against the Christian whose convictions above all lead him to contradistinguish God from the world and not to confound Him with it, the Pantheist urges that God’s transcendent operance would be an extraneous element, incompatible with the required unity of work and power, cause and effect. His doctrine is that the Universe is only a process of

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self-evolution, of which what is called Deity is the indwelling power and principle. The origin of Pantheism is uncertain, and it has assumed various forms; but for its influence on modern thought we need seek probably no further than the powerful philosophy of Benedict Spinoza. He, guided by the category of Substance and its Accidents, explains the universe, moral and physical, upon the assumption that it consists wholly of an *unica substantia*, whose attributes, Thought and Extension, are adequate to account for all modes of being and existence. To enter into the controversy between Christian Monotheism and Pantheism would involve the consideration of Pantheism in its *moral* aspects, which we are not prepared here to discuss. But it may be observed that the controversy presents a case in which truth requires the intervention of an Idea. "Transcendence" and "Immanence" are terms which, as regards God's relation to the world, not only do not exclude, but (as will hereafter appear) essentially require and imply, one another, and find their reconciliation as correlatives in the Idea of that supreme relation.

CHAPTER V.

THE SOUL, AS THE TOTAL SPHERE OF BEING OF
THE WILL.

IF the student shall have convinced himself that the Will is the essential primary and living principle of Man's conscious being, intelligent and moral, he may not at once see, or bring into unity of conception, in accordance with the demands of a consistent philosophy, the conditions of the total and actual sphere of being and agency, which the principle contains, comprehends, and animates. Now in the preceding chapters we have spoken of Thoughts, Volitions and Feelings, as distinctive states of the Will, considered in its individual sphere of act and being. These distinctions will (somewhat modified) answer our present purpose. Of *Thoughts* it will be unnecessary to speak, since it is evident that the Will in any proper sense would cease to be what we mean, unless conceived as indissolubly united with intelligence. But I may here observe that as the Will cannot be conceived without intelligence, so neither can the opera-

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tions of the mind be dissociated from acts of the Will :—witness the indispensable co-presence of Will in all acts of Attention, Recollection, Judgment, and in our Convictions of general truths. And confessedly, as I need hardly observe, *Volitions* are acts of Will.

But, in connexion with our present object, we desire to draw the attention of the student to the remaining distinction, namely the *Feelings*;—and if we consider these, in a general sense, to be affections in which “the living subject must at least so far know as to find or feel its own state,”* we may conveniently conjoin with their consideration that of the corresponding *Impulses*, in which the living subject is induced or roused to more or less conscious and deliberate acts of volition. Now in connecting Feelings and Impulses with the Will, as the causative ground of the sphere in which they operate, let me observe as a preliminary caution that we dare not conceive even human Will as *absolutely* originaive of its sphere of being and agency, or capable of originating any act *unconditionally*, that is, except under the conditions imposed by man’s creaturely dependence. Without this indispensable reservation, we might be justly charged with elevating man falsely and impiously into the dignity of the Creator. Man can only occupy a sphere of which the limits are pre-determined. And hence, as the conditions under

* Vital Dynamics, p. 31.

which he exerts the relatively causative or originant Will by which he asserts and maintains his sphere of act and being, we have to assign to his Will, in its self-ponency and agency, at least these,—that, on the one hand, it requires *solicitation* from without, and on the other, *impulse* from within. We may extend this position far beyond what human psychology requires:—In every grade of being in that scale which culminates in, and is throughout rendered intelligible by, will and mind, the existence of the living subject “must begin from itself—I do not say caused by itself—and depends upon an *appetence to be*, or to fill a predetermined sphere;—in other words, living existence implies a subject, or power, which, actuated and directed by the law or idea, becomes a causative agency formative and productive; and this under the condition of being excited to act, and at the same time of resisting the excitant, as long as it remains an alien power, either by repelling or appropriating the same.” (Comp. Vital Dynamics, p. 30.)

I have elsewhere ventured to characterise these tendencies, under the names *Excitability* and *Resistance*, as the correlative forces or factors of life,—that is life psychical, and organic as far it is psychical and for want of a better name may be called “*somato-psychical*.” In pursuing the investigation of these tendencies in their psychological aspect we find the intel-

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ligible ground of the distinction of *Desires* and *Aversions*. *Desire*, excited by the sense or promise of gratification, is the disposition to appropriate, to have and to hold as its own, that which the soul likes and lusts after : but if cupidity by its temptations leads the soul so far out of itself, that it begins to apprehend the loss of the self by outward dissipation, resistance assumes the form of *Aversion*, and as it were by a retractive effort recalls the subject to its centre in order to secure its being. But in this antagonism another is implied, namely that of *Susceptibility* and *Repellence*. *Susceptibility* is the disposition which tends to give force to the impress of the outward excitant, but at the same time tends to secure the self ; since, under any excess of excitement threatening danger, it rapidly passes into *fear* of the hostile and alien, and calls forth the reaction, which we have called *Repellence*, in order to resist or defeat the foe or supposed assailant. Comp. "Facts of Consciousness," p. 42. And if such be a true account of the dispositions and tendencies of the Psyche, we may sum up the preceding by saying :—That the Will, contemplated in its essential character as the tendency to realize itself, having been traced to its root as the Appetence to be, we have found that the Feelings and Impulses, by which the Appetence is necessarily manifested, appear and may be best expressed in the more general characters of Excitability

and Resistance; and that these unavoidably take the fourfold form designated above as Desire and Aversion, Susceptibility and Repellence. That these are modes or forms of Will, as the source of causative agency, can scarcely be doubted. We recognise Will in its inalienable disposition to realize itself, to be self-ponent;—but this self-ponency cannot be realized except in relation to an Outward; for which relation the only conceivable conditions are the condition of willing to appropriate that which is congenial and has excited the longing thereto, and the condition of willing to resist or avoid that which threatens or endangers the psychical sphere of agency. It is true that, guided by spiritual experience, we contemplate the Will no longer in its ideal freedom of agency: but we do no more than consider it in its relatively *active and passive* states, and this in consonance with data furnished by facts of our conscious experience.

But having now explained, so far as our present purpose renders necessary, under what conditions we have to regard the Will as self-ponent and constructive of its individual sphere of being, I have to warn the student that he must pursue this process of self-investigation by a double method, which we may name or distinguish as the *ideal* and the *empirical* methods:—that is to say, he will have to consider the individual Will, or self-ponent Subject in respect of the Will, as the principle of his Spiritual being in its ideal integrity, divested of and

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abstracted from all the hindrances and imperfections which practically obscure and limit, though they do not obliterate, its essential character; and, on the other hand, he will have to consider the Will under the actual psychical conditions, which detract from the purity and integrity of its ideal excellence, but still are essential constituents of the actual sphere of being. What we call the "Soul" is not perhaps a term capable of very accurate definition, but we generally understand by it, the immaterial part of man, as contradistinguished from his material and bodily part, which immaterial part may survive the death of the corporeal and now existing organism. But we have here to distinguish in the "Soul" so considered, at least two states or spiritual conditions which, though correlative, are opposed to each other. The one, is that which derives its character from the life and light infused by the Divine Spirit, and this state of moral potentiation and dignity we may name the *Spiritual*. The other state, not less essential, is that which man has by nature—including understanding, the passions, feelings and affections, which are common to man; and this state we may call the *Natural*. And we may admit that the distinctions intended are those which the Apostle Paul has happily characterised under the terms "*πνευμάτικος*" and "*ψυχικός*," or, as translated in our version of the scriptures, the spiritual and the natural

man. It may be however remarked in making these distinctions, that we do not forget that the corporeal, or merely vital, is an essential element of man's existence, and cannot be disjoined from the Soul, when considered in a sphere of actual living agency. Hence says St. Paul, with great propriety, it is raised "in power," that is, with the living principle of corporeal self-construction; and if we consider the living body in its manifold inter-agency with the mind and soul, we may add to the former the designation *somato-psychical*, as marking the blending of corporeal life and mind.

Thus then, without attempting here either proof or corroboration, we say that the Soul is a Will, self-affirmed and self-potent in its individual sphere of agency. And although we are not under the necessity of considering the Soul or Spirit as incorporated, we have yet unavoidably to contemplate it in the two aspects above mentioned. On the one hand, there is the *Spiritual* or *ideal view*, furnished by contemplating in its ideal integrity the subject of our self-consciousness, and presenting to us the Will, when enlightened and enlivened by the Divine Spirit, as the individual Conscience and as the principle of moral Freedom, that is, of acting in unison with the Will of God. On the other hand, we have to contemplate the same Will under the *empirical aspect*, derived from the conditions of its present actual and temporal

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existence; and this aspect discloses to us the Will, under its impulses and affections, its desires, passions, and propensities, as self-ponent in the particularity of a self and its selfish particularity, and hence in principle always, and in practice ever more or less, at variance with, and in opposition to, the Divine Will.

Now if we turn our attention, in this all-important distinction between the Spiritual and Natural Man, to the state and condition of the latter in respect of his moral or spiritual character, it will be confessed that man by nature (that is, as warranted by universal experience of his present or temporal state of being) has unmistakeably a *propensity* or *proclivity to Evil* — a natural tendency to sully, alloy, or even frustrate, the disposition to purity and goodness which is no less implanted in him, and is derived from a higher and better source — a tendency and radical impulse to assert and realize his self-will with all the unhallowed desires of its selfishness. What the causes and conditions of human pravity may be it is not my purpose here to determine. Sufficient for us now that it is a fact, deplorable indeed, but universally acknowledged; and though we have appealed to the authority of St. Paul in the distinction drawn between the *ἀνθρώπος ψυχικός* and *πνευματικός*, the pravity in question is not only a christian doctrine, but has been equally accepted by the thinking part of the Gentile

world;—nay, in this distinction we recognise the foundation of the religious philosophy which was one of the earliest growths of the human Reason, namely the Zoroastrian, and which vindicated its power not only in its influence on Judaism and on the Gnostic perversions of Christianity, but retains its hold on heathen worship to this day.

To some it may sound plausibly that vice and moral corruption are the results and products only of deteriorating influences acting on a moral disposition originally pure and untainted by evil. But a reflective mind will ask with reason, what is then to account for the fact of the contamination, and to explain the universal tendency to the pravity in question? More logical, indeed, is the denial of the existence of evil and wickedness conceived in any sense as real efficient; and such denial is doubtless more convenient to those who are disposed to resolve the principles of moral good and evil into mere statutory ordinances of the Will of God, into human maxims of Utility, into the results of human Feeling, or into inevitable antagonisms in a scheme of pantheistic Optimism, all, however, under the impression that there is nothing right or wrong, just or unjust, by its own nature, and in and of itself, according to the inviolable and eternal principles and laws of the moral universe. The sifting of the theories of Morals, or principles of

ethical science, forms too large a subject for adequate discussion at this place, and could contribute little to the establishment of the facts, which here press for admission. Meanwhile, in vindication of the existence of natural pravity, alleged to be capable of verification not only in the conduct of mankind, but in the breast of every individual who has the honesty and requisite discernment to put himself to the test,—I venture to affirm, in aiding the student to the self-investigation here proposed, that, taking the Will as the primal agent and source of agency, he will be at no loss to discover, from the conduct of others interpreted by reflection on himself, that whenever man makes his own mere *self-will* the sole arbiter of his conduct, and thereby assumes the power and privilege of gratifying his selfish lusts, he throws off all moral restraint and gives loose to his natural pravity. For taking the extreme case as we are entitled to do, if the propensity to the gratification of self be admitted, it is impossible not to see that the selfish lusts, in their various aspects of fraud, rapine and violence, would acknowledge no bounds, and could only end by producing an internecine strife destructive of human society itself. Thus then the conclusion, warranted by observation of others and by self-examination, is, that the root of human pravity is *Selfishness*, and that, whether in the individual or in mankind at large, the unrestrained tendency thereto is, in respect of the

necessarily *social* conditions of human life, abortive and self-destructive.

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On the other hand, the student in pursuing his meditations, will no doubt consider, that should the human Will submit to the condition of *willing only that which under like circumstances may be universally willed*, or, in other words, to the condition of conforming his individual Will to the universal Will, that is (as we shall hereafter show) to the Divine Will and to God's moral laws, it cannot but follow that the human Will, eschewing all inordinate desires, evil passions, and vicious propensities, will cultivate peace, meekness, moderation, humility, patience, justice, charity, and the virtues which tend to preserve society and maintain social harmony.

These considerations naturally suggest the survey of man in his spiritual aspect. But, before proceeding to this necessary part of our investigation, I may observe in this preliminary account of the problem and results of Spiritual Philosophy, I do not wish to go farther into the question here mooted than to insist on the distinction between the natural and spiritual man, as the opposed tendencies which will be found in every man;—on the one hand, the tendency of the Will to assert its own particularity as absolute; and on the other, the tendency to spiritual integrity, as the disposition of the human Will, when enlightened and enlivened thereto, to conform its selfish particularity to

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the absolute and universal Will of the supreme moral Governor of the world. And I offer the foregoing and following observations as a satisfactory exposition of the distinction proposed with a view to the safe interpretation of the facts of consciousness. I shall not however hold myself excused from a more searching inquiry into the nature of Good and Evil, calculated to show that the former is the principle of spiritual health and life and integrity, the latter as the principle of spiritual corruption, disintegration, and death, whether in this world, or in that to come.

According to the order which I have prescribed for myself, I have now to direct the student's attention to a survey of *Man in his Spiritual Aspect*; and as I have said (pp. 287-8, ante) in making this deliberate survey he will have "to consider the individual Will, or self-ponent subject in respect of the Will, as the principle of spiritual being in its ideal integrity, divested of and abstracted from all the hindrances and imperfections which practically obscure and limit, though they do not obliterate, its essential character." It will be evident that in the investigation before us, we shall have to move in the region appropriated to the Speculative Reason as the source of Ideas. And (as the next part of this work will show) I do not despair of placing before the reader a *Series of Propositions, in which the main truths of Ideal*

Integration are exhibited by the light of their own evidence, and by means of which the unavoidable demands of the speculative intellect and of the rational mind may be satisfactorily fulfilled and gratified.

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